Translation Theories and their Applications in Translating a Medical Text Entitled "Steroids Drug Dangers"

By

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Dedication

This work is dedicated to the memory of my parents, who passed on to me the love for reading and respect for education.
ACKNOWLEDGMENTS

It would not have been possible to write this doctoral thesis without the help and support of the kind people around me, to only some of whom it is possible to give particular mention here. This thesis would not have been possible without the help, support and patience of my principal supervisor, Prof. Abdull Majeed Altayib Omar, not to mention his advice and unsurpassed knowledge of translation and linguistics.

I would like to acknowledge the academic and technical support of Umm Al-Qura University website and its staff, particularly in the section of scientific resources of king Abdullah library (SDL) that provided some of the necessary technical support for this research. I also thank the English Language Centre administration for their support and assistance since the start of my career at the college of social sciences, especially the former director of the centre Dr. Sami eterjy and the recent one Dr. Sultan
This study is entitled Translation Theories and their applications in translating a medical book entitled, “Steroids Drug Danger”. Despite the vast research by translation enthusiasts, especially in scientific translation domain, the study intends to shed some more light on particular types of translation as well as the possibilities of considering the craft of translation officially theoretical or merely a practice. The objective of this study is to examine the problems of methodology in translating scientific books and references. These problems are outlined for exploring the impact of the source language on the target language through imposing modern scientific terminology for no obvious reason except the linguistic incompetence of the translation and/or the translator. This study also tries, through translating this scientific text, to educate the Arabic reader and make him aware of steroids abuse dangers and how to detect them. The significance of this study resides in adopting a scientific methodology to be utilised by translator to redirect and improve the output. The study adopts the analytical approach to analyse the source text as a qualitative research methodology. This method allows the study to come up with genuine understanding through meticulous reading for smooth rendering of the target language. Research findings indicate that merging of both standpoints, utilizing modern theoretical methodology along with ample practice exposure of translation, might be a unique objective trend for the future. This newly born trend might also assist evolving efficiently minute utilization of theory as well as pedagogy. In conclusion, this study strongly acknowledges the importance of translation on both theoretical as well as practical level and recommends that translators must get sufficient practical expertise with scientific pedagogical teaching as a stand-alone major at Arabs universities and higher institutes.
العنوان: نظريات الترجمة وتطبيقاتها في ترجمة نص طبي بعنوان "مخاطر عقاقير الاستيرويدات"

الباحث: محمد سليمان محمود شوشو
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كلية التربية
جامعة الجزيرة

مستخلص البحث

تتولى هذه الدراسة بعنوان نظريات الترجمة وتطبيقاتها حول ترجمة كتاب طبي بعنوان "مخاطر عقاقير الاستيرويدات". فعلى الرغم من البحث الواسع من قبل المهتمين بالترجمة وخصوصاً في مجال الترجمة العلمية، فإن هذه الدراسة تسلط المزيد من الضوء حول أنواع معينة من الترجمة وحول إمكانية اعتبار الترجمة نظرية بحثية بشكل رسمي أو اعتبارها مجرد ممارسة لا غير. تهدف هذه الدراسة إلى مناقشة مشكلة أسلوب ترجمة الكتب والمراجع العلمية وتشمل مشكلة البحث في معرفة تأثير اللغة المصدر على اللغة الهدف من خلال فرض مصطلحات حديثة عليها وذلك بسبب ضعف ثقافة الناقل اللغوي (المترجم) وضعف أسلوب النقل بين اللغتين. كما تحاول هذه الدراسة من خلال ترجمة هذا الكتاب العلمي تثقيف القارئ العربي حول مشكلة استخدام الاستيرويدات ومخاطرها وأسلوب الكشف عنها. وتتمثل أهمية هذه الدراسة في تبني أسلوب علمي بنحت يستخدمه المترجم لتحسين مخرجات الترجمة وتقنين أسلوب النقل. أثبتت الدراسة في هذا البحث طريقة تحليل محتوى النص للغة المصدر وهي طريقة علمية نوعية تفيد المترجم بشكل عام والمترجم العربي بشكل خاص في استنباط المعاني الحقيقية للنص المصدر من خلال تفعيل القراءة المتعقبة وتحليلها لتسهيل نقل النص للغة الهدف بسهولة ويسر. ومن أهم النتائج التي توصلت إليها الدراسة هو أن الاجتهاد في استخدام النظريات الحديثة وتطوير أساليب الترجمة يعد أسلوبًا فريدا للنقل بصورة علمية وموضوعية. كما أنها تساعد على تطوير النظريات والأساليب الترجمية وتفعيلها داخل حيز علمي دقيق. وخلصت الدراسة إلى عدة توصيات أهمها الاهتمام بموضوع الترجمة على المستوى النظري والمستوى التطبيقي. واهتمام بتدريب المترجمين وتدريس مادة الترجمة العلمية كتخصص رئيسي في الجامعات العربية والمعاهد العليا.

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Chapter One
CHAPTER ONE

Introduction and Definition of the Problem

1.0 Introduction

Critics as well as practitioners have recently viewed translation from different prospective, when it comes to the importance of teaching translation theory, while others have adopted the idea that practitioners and those who are involved in translation need only translation practices. In this effort, the researcher’s intention is to look first at translation as an exercise. Second, he emphasizes the argumentation that translation is a combination of theory and practice; it is neither a solo practice nor a mere theoretical exercise, but rather a combination of both. The recommendations made here are not intended to be applied only to the process of translating a text from Arabic into English or vice versa, but rather be applied into translating any medical or scientific texts.

People who are involved with translation might gain a lot of experience by exposing themselves to the principles and rules of translation theory. Such rules involve different kinds of topics such as semantics, contrastive linguistics, communication strategies, and above all, the idea of equivalence.

1.1 Objectives of the Study

The objective of the study in translation practices is to elicit, from practitioners and those involved, activities which do not merely demonstrate the lack of source text comprehension, but which are also
indicative of the appropriateness of the translation as a proper, decent and publishable work. The most critical factor, however, is to demonstrate whether applied linguistics or, in more specific terms, translation theory, helps translators or interpreters in their translation career.

Furthermore, this study aims at providing the Arabic readership with some important information about the danger of steroids, a danger which has been much more extensively used specially in the Muslims Arabs countries.

1.2 Importance of the study

Translating medical books which are tackling sensitive issues in people’s lives as well as the international community has still shortcoming. Thus, one can say that the most important aspect to curtailing abuse is education concerning dangerous and harmful side effects, and symptoms of drug abuse. Athletes and others must understand that they can excel in sports and have a great body without steroids. They should focus on getting proper diet, rest, and good overall mental and physical health. These basics are all factors in how the body is shaped and conditioned. Millions of people have excelled in sports and looked great without using steroids. This study tries to provide the Arabic reader with necessary information as well as educating the layman more about the topic of abused drugs.

1.3 Statement of the problem

Translation of medical texts is one of the most complicated problems that face specialists in this field. This problem has created a
serious barrier for many Arab learners who want to acquaint themselves with medical and scientific knowledge that may help them to maintain a healthy pattern or style of life. Lack of adequate translation of such texts has reflected negatively on the standard of health education of people in the Arab world and kept the Arabic libraries lagging behind. As a natural consequence of lack of proper resources that can be used to educate citizens on these issues, many of them have exposed themselves to serious health hazards. To handle this problem, the researcher attempts to apply his expertise in translating a medical text entitled "Steroids Drug Dangers" and present it as a model for translating such texts.

1.4 The Subject of the Study

The major subject of this study is translation of the book mentioned in the previous section under the title “Steroids Drug Dangers”. In this book, it is reported that more than (88%) of athletes repeatedly use supplements, and the problem is an old one. Most cultures have admired and rewarded athletic skills and bestowed athletes with extraordinary status. Ancient Olympians consumed animal organs in the hope of acquiring the performance capabilities of the animal. They also experimented with herbs, alcohol, and hallucinogens to enhance their strength and courage for competitions. Ancient Incan countries chewed coca leaves as a performance aid that was believed helpful for running at high altitudes. This book, therefore, deals with an old issue that is the use of supplements and their effect on athletes.
According to Johnston, the study’s principal investigator, of the University of Michigan in Ann Arbor shows that the use of steroids during the year prior to the survey rose from 1.7 percent in 1999 to 2.2 percent in 2000 among 10th-graders but remained stable at 1.7 percent among 8th- and 12th-graders. Among teenage males, where most steroid use is concentrated, past-year use was reported by 2.2 percent of 8th-graders, 3.6 percent of 10th-graders, and 2.5 percent of 12th-graders, Johnston added at a December 2000 press conference announcing the most recent findings.

The Monitoring the Future study, conducted by the University of Michigan's Institute for Social Research and funded by NIDA (National Institute on Drug Abuse), has tracked high school seniors’ illicit drug use and attitudes toward drugs since 1975. Younger teens, in grades 8 and 10, were added to the survey in 1991. Data for the 2000 survey represent responses of more than 45,000 students in 435 schools across the Nation to questions about lifetime use, use during the past year, use during the past month, and daily use of various illicit drugs, alcohol, cigarettes, and smokeless tobacco.

This survey provides crucial information on the real-world experience of young people with drugs, and the recent increases in MDMA use are a major concern, said NIDA Director Dr. Alan I. Leshner. He also adds:
“Ecstasy is not a ‘fun’ drug. It is neurotoxic—it severely damages brain cells and has consequences that include dehydration, hypertension, hyperthermia, and heart or kidney failure.”

Generally speaking, the use of performance enhancers varies with the sport. When illicit substance use is common, athletes may feel compelled to use performance enhancers in order to “level the playing field.” In addition, many athletes unwittingly consume performance-enhancing substances because approximately (15%) of retail cryogenic supplements contain banned substances that are not identified on the product label.
Unfortunately, patients may not report use of these substances or supplements, either for privacy concerns or because they do not consider such use to be a medical issue.

Powerful cultural incentives accompany elite athletic achievement. Products that enhance performance or physique are continually being developed, and their use can have a significant impact on patients’ health. Gene modifiers and insertion of modified DNA into a patient’s genome (transfixion techniques) may be the next generation of performance-enhancing practice.

All those issues are thoroughly discussed in the target text which will be translated into Arabic. The product is bound to enrich the Arabic library and gives the researcher a unique opportunity for putting translation theories into practice.

1.5 Need for the Study

There is an urgent need to acquaint translators with the theoretical knowledge that qualifies them to handle the task of scientific translation and particularly the translation of medical texts in a professional way.

There is also a need for knowledge about performance-enhancing practices in order to help patients navigate this troubling environment. This book is likely to help provide this type of knowledge about performance-enhancing and its impact on health.
This study poses a number of questions which are the following:

1. What is the most suitable method or methods of translation that can be used to translate medical and scientific texts?
2. What are the main problems that are likely to face specialists in the field of medical translation?
3. What kind of expertise is required to translate medical and scientific texts?
4. How can theory and practice brought together to promote the translation profession?

1.7 Hypotheses of the study

1- The eclectic method is the most appropriate for translating medical texts.
2- Medical terminology and style of medical language pose the most serious problem in translating medical texts.
3- Perfect mastery of both languages (SL and TL), as well as reasonable medical background is essential requirements for translating medical texts.
4- Translation profession can be promoted by bringing together theory and practice.

1.8 Limits of the Study
This study is limited to aspect of medical and scientific translation. Generalizations of the findings of this study to translation in other fields of study should be taken with great care.

1.9 Definition of Terms

1. Translation theory; the purpose of the linguistic approaches to translation is to disclose translation process through sociolinguistics, pragmatics, cognitive linguistics.

2. Literal translation; like “Word-for-word”, “phrase-for-phrase” and “thought-for-thought” (Carson), are basically used because it is assumed that it equals to more accurate, more superior, more faithful and more precise.

3. Source text; donor language, the language from which a translation is originally made.

4. Target text; receptor language, the language into which a translation is made.

5. Meaning; the sense of a word that can be expressed in a definition, some words can be defined apart from a referent, though they may have a referent in a particular context.

6. Terminology (vocabulary); semantic domains, words in various languages have varying ranges of meaning, the specific semantic domain of one word does not exactly overlap with the semantic domain of its closest equivalent in another language.

7. Morphology and inflections; languages have different systems of inflection which impinge on translation as to how word function is indicated.
8. Syntax (grammar); a strict formal equivalence, maintaining the same word order, results in nonsense.

9. Eclectic approach of translation; merging more than one approach to come up with more precise type of translation.

10. Steroids Drugs; Anabolic steroids are synthetic hormones that can boost the body's ability to produce muscle and prevent muscle breakdown. Some athletes take steroids in the hopes that they will improve their ability to run faster, hit farther, lift heavier weights, jump higher, or have more endurance.

11. Drug abuse; this refers to the overuse of drugs which can danger a person’s health.

12. Drug addiction; drug abusers may not be fully aware of the consequences until it’s too late and the health problems caused by steroids may not appear until years after the steroids are taken.

13. OTC; Over the counter medication.

14. HGH; Human growth hormone.

15. RBC; Read blood count.

16. Erythropoietin injections; medical substance used to increase human RBC, hence, improve athletic performance.

17. WADA; World Anti-Doping Agency.

18. DNA; Deoxyribonucleic Acid.

19. NIDA; National Institute on Drug Abuse.

1.10 Organization of the Study

This study involves five chapters. These are Chapter One which includes an introduction and state of the problem. Chapter Two,
reviews and surveys relevant literature. Chapter Three, highlights the method of the study. Chapter Four, gives the data analyses and Chapter Five discusses conclusions, findings, and gives the recommendations and suggestions of the study.
Chapter two
CHAPTER TWO

Literature Review

2.0 Introduction

In this literature review the author’s emphasis is mostly geared towards the significance of translation, chronological structure as well as translation of historical events that took place centuries ago. This chronological structure might enlighten the readership with a few aspects about translation and translation theories and also shed some light on how those theories had actually evolved throughout a particular span of time. In this introduction, the author briefly reviews the historical stages of translation as they had taken place in real life and put them in century-wise order along with a quick discussion of the religious contrastive point of view between Christianity and Christian constitution book verses Islamic constitution book.

2.1 Translation perspectives;

2.1.1 Translation in The Roman era

Translation during the Roman era can be perceived as a standalone genre because it was embraced and had risen from a purely vision of literary production that followed an established canon of excellence across linguistic boundaries. In addition, it is worth mentioning that bilingualism and polyglotism had increasingly been noticed and multiplied with the expansion of the Roman Empire.
2.1.2 Bible Translation (not The Holy Quran!)

Translations of the New Testament were made very early. In 384 AD St Jerome was commissioned by Pope Damasus to translate it (The Bible), then he declared his translation to be sense for sense (free) rather than word for word (literal). According to Bassnett (1990) in her book “Translation, History and Culture” the first translation of the complete Bible into English was the Wycliffite Bible produced between 1380 and 1384, it came out of the necessity of the huge expansion of Christianity during that time. Wycliffe’s theory of producing the guidance of the Bible was applicable to all human life. It followed that each man should be granted access to that crucial text in a language that he could understand (vernacular). He and his followers were ferociously attacked and denounced as “Lollards”, and after his death, John Purvey revised the first edition in 1408 and labelled it as (the first dated manuscript). Wycliffe’s theory describes the four stages of the translation process as:

(1) A collaborative effort of collecting old Bibles and glosses and establishing an authentic Latin source text;

(2) A comparison of the versions;

(3) A counselling “with old grammarians and old divines” about hard words and complex meanings; and

(4) Translating as clearly as possible the “sentence” (i.e., meaning), with the translation corrected by a group of collaborators.

The history of Bible translation in the sixteenth century is intimately linked to the rise of Protestantism in Europe. The public burning of Tyndale’s New Testament in 1526 was followed in quick
succession by the appearance of Coverdale’s Bible (1535), the Great Bible (1539) and the Geneva Bible in 1560, (Bassnett, 1990).

Having gone through all these changeful circumstances with so many different translated versions produced and coloured with absolutely unclear political decisions from church authorities, The Bible suffered lots of translators’ errors due to inadequate SL manuscripts or linguistic incompetence.

Whilst the case is as such with Christianity, the whole picture differs with the Holy Quran of Muslims. Muslims believe the Quran was verbally revealed through angel Gabriel from Allah the Almighty to his prophet Muhammad when he was 40, over approximately 23 years beginning 609 CE (Nasr, 2007). Qur’an has been translated into most African, Asian and European languages (Fatani, 2006).

Translation of the Qur’an has always been a problematic area to all Muslim scholars and a difficult issue in Islamic theology. Since Muslims revere the Holy Qur’an as miraculous and inimitable, they argue that the Qur’anic text cannot be reproduced in another language or even form close to the original is absolutely next to the impossible. Therefore, and for the sake of not altering the wordings, translators called it “interpretation” (Ruthven, 2006) or “translation(s) of the meanings”. Here, the author provides an example of translating the meanings of one verse from one of the good available online translation resources (King Fahd Complex for the Printing of the Holy Qur’an);

إِنَّا نَحْنُ نَزَّلْنَا الذِّكْرَ وَإِنَّا لَهُ لَحَافِظُونَ

سورة الحجر – آية (9)
((Verily, We, it is We Who have sent down the Dhikr (i.e. the Qur’ân) and surely, We will guard it -from corruption)).

In this particular verse Allah The All-Mighty vows that He will reserve this book (Qur’ân) until the end of time (doom’s day). This promise is peculiar to Muslims and followers of Islamic shar’ia and the Qur’anic constitution. No other religion, what so ever, had ever been rewarded with such promise that their book will be reserved by Allah except for this last nation along with the last book from Allah.

2.1.3 The Fifteenth Century

As early as the fifteenth century, the invention of printing technique had just started with very limited capability, so did the early theories of translation. Dolet (1509-46), a French humanist was among the early people who wrote about translation theory and published a short outline of translation principles. He was executed later for misinterpreting one of Plato’s dialogues. Dolet’s principles are:

(1) The translator must fully understand the sense and meaning of the original author, although he is at liberty to clarify obscurities.

(2) The translator should have a perfect knowledge of both SL and TL.

(3) The translator should avoid word-for-word renderings.

(4) The translator should use forms of speech in common use.

(5) The translator should choose and order words appropriately to produce the correct tone.
Dolet’s views and principles were reiterated after his death by Chapman (1559-1634), the great translator of Homer. Chapman states that a translator must:

(1) Avoid word for word renderings;
(2) Attempt to reach the “spirit” of the original;
(3) Avoid over-loose translations, by basing the translation on a sound scholarly investigation of other versions and glosses.

2.1.4 The Renaissance

This period has witnessed lots of stress and dispute especially after Dolet’s execution. Cary (1963) describes it, he adds; “Translation became an affair of State and a matter of Religion” and he also adds “The Sorbonne and the king were equally concerned with it."

“One major characteristic of the period (reflected also in the number of translations of the Bible that updated the language of preceding versions without necessarily making major interpretative changes) is an affirmation of the present through the use of contemporary idiom and style” Bassnett adds.

It is worth mentioning that during that time translation was by no means a secondary activity, but a primary one, shaping and forming the life of the intellectuals forcefully. Moreover, all translators played the role of revolutionary activists rather than servants of an original author or text. As Steiner (1975) puts it:
“At a time of explosive innovation and amid a real threat of surfeit and disorder, translation absorbed, shaped, oriented the necessary raw material. It was, in a full sense of the term, the matiere premiere of the imagination”.

2.1.5 The Seventeenth Century

Dryden (1631-1700) tackled the problems of translations by formulating three basic types:

1. metaphrase, or turning an author word by word, and line by line, from one language into another;
2. paraphrase, or translation with latitude, the Ciceronian “sense-for-sense” view of translation;
3. imitation, where the translator can abandon the text of the original as he sees fit.

Dryden's views on translation were followed fairly closely by Alexander Pope (1688-1744), who advocates the same middle ground as Dryden. Among his basic types, Dryden himself chooses the second as the more rational and balanced type as long as the “fire” of source is kept alive.

2.1.6 The Eighteenth Century

In 1791, Alexander Fraser Tytler published a volume entitled The Principles of Translation, the first systematic study in English of the translation processes. Tytler sets up three basic principles:

1. The translation should give a complete transcript of the idea of the original work.
(2) The style and manner of writing should be of the same character with that of the original.

(3) The translation should have all the ease of the original composition.

2.1.7 Post-Romanticism

Friedrich Schleiermacher (1768-1834) proposed the creation of a separate sub-language for use in translated literature only, while Dante Gabriel Rossetti (1828-82) proclaimed the translator's subservience to the forms and language of the original. Schleiermacher's theory of a separate translation language was shared by a number of nineteenth-century English translators, such as F.W. Newman, Carlyle and William Morris. Their school of thoughts that meets the nineteenth century ideology regarding translation are deliberately, consciously archaic, full of such peculiarities of language that they are difficult to read and often obscure.

2.1.8 The Victorians era

During the Victorian, translators’ recurrent concern regarding translation was more like a real need to convey the remoteness of the original in time and place. Matthew Arnold (1822-68) advises the lay reader to put his trust in scholars in a sense that they are the only experts who are capable of conveying the exact meaning from SL to TL. He also adds that the translator must focus on the SL text primarily and must serve that text with complete commitment. Then came Edward Fitzgerald (1809-63), who is best known for his version of The Rubaiyat of Omar Khayyam (1858), and who made the famous remark that it is better to have a live sparrow than a stuffed eagle, his work seeks to
bring a version of the SL text into the TL culture as a living entity. So one might sum up major contemporary translation typology during capitalism and colonial expansion up to the First World War as follows:

(1) Translation as a scholar’s activity, where the pre-eminence of the SL text is assumed de facto over any TL version.

(2) Translation as a means of encouraging the intelligent reader to return to the SL original.

(3) Translation as a means of helping the TL reader becomes the equal of what Schleiermacher called the better reader of the original, through a deliberately contrived foreignness in the TL text.

(4) Translation as a means whereby the individual translator who sees himself like Aladdin in the enchanted vaults (Rossetti’s imaginative image) offers his own pragmatic choice to the TL reader.

(5) Translation as a means through which the translator seeks to upgrade the status of the SL text because it is perceived as being on a lower cultural level.

2.1.9 The Twentieth Century

Some more elaboration on translation in the twentieth century will be provided later in this chapter; however the author may provide general characteristics to guideline theorists and scholars’ productivity and attitudes. For the attitudes towards translation and the concepts of translation that prevail, belong to the age that produces them, and to the socio-economic factors that shape and determine that age.
2.2 Vocabulary and Translation

A wide range of studies has been carried out on the processes and the significance for overall learning of vocabulary acquisition. It has also been suggested that translation can be a means of learning to cope with updates. Among the questions that have been addressed are: Does it help or hinder learning if you present vocabulary out of context? Does it help learning if you teach the key vocabulary before you read a new passage, or should you let the learners read it first, and then have the new words explained?

Translation can be somehow tricky and sometimes unpleasant even for experienced practitioners. For instance, asking someone to translate a regular sentence does not give very much guidance about what is required. One very common cause of confusion is whether the translation should be absolutely literal or free. It is very easy to produce gibberish by translating a sentence word-by-word or using the internet assisting sights tools to translate the whole medical or scientific text all at once. You may need to explain that you need a sentence which also sounds natural in the target language exactly as they sound in the source language. How can translators verify this? One way to check this is to read back the sentence, and ask whether it is something one might hear someone on the street say. One can also check the sentence with another speaker of the language, but someone should be careful that people do not get the impression that you are checking up on them.
Providing these words in isolation can make a lot of difference. It’s not a very natural style to adopt, and if they have not had much experience with linguists or education they might think it is ridiculous that one does not want whole sentences. It could be pointed out that one is just learning the language for the first time and wants to be able to pronounce each word properly, and know what each word means. This type of adaptation can be mechanical and used only with technical terminology available in specialized dictionaries or robot mimicking speech people usually hear while processing banking withdrawing or transactions via telephone or Automated Teller Machine. If that does not work, a carrier phrase can be used. That way, one still get data which can be used, and the subjects get to give one the data in a way that is comfortable for them. The same sentence can be used for each word, so one will be able to identify which part of the sentence means what. If one is pointing at objects, one does not forget to say what one is pointing at; if one has an audio recorder only and does not do this, one will have a lot of recordings where one cannot identify what one is pointed at!

When working with someone who had great knowledge of the language, this figure can never give a straight translation of a word or a sentence. For every sentence you might ask, he would think of a context and make up a story about it, which sounds really rational. This type of holistic approach can be very close to reality. Also, their ability of prediction as well as the accuracy of guessing makes people respect their ideology and their methodology. This greater emphasis of
utilizing words in their respective contexts rather than using them only in isolation could actually open doors for exploration to translators and would also enlighten obscured turns for translators.

2.3 Appropriate lexical choice

Having solid linguistics backgrounds especially in lexicography usually allow translators to work proficiently on this area. They need to be familiar with the field of semantics. Kearns (2011) provides good background introductions to areas such as connotation and denotation, and to semantic relationships like synonymy, antonymy, and hyponymy. Crystal (2003b) has a whole section on the lexicon and English vocabulary.

A regular type of lexical style analysis will ask: Why have these particular words been chosen over the others, and what are the connotations of the chosen words? For example, if the word “drug” is mentioned, is it being used simply to indicate the medical treatment for sick people, or also to imply a sense of abuse or sometimes misuse? If the latter sense is implied, there is a heavy cultural transferred dependency, as drug has different symbolism in different parts of the world.

Throughout the historical records, the lexical choice of the writers can indicate the ideological standpoint from which he/she is writing. Is a conqueror described as a hero, a villain, or a freedom fighter? Were victims terminated in battlefield, massacre, or an atomic bomb? In fiction, the author’s perspective and opinion of characters are often indicated through the choice of nouns, verbs, and adjectives with positive or negative connotations. One might consider these facts
description about people like Mao Ze-Dong (China, 1958-61 and 1966-69, Tibet 1949-50) who killed more than 70.000.000, Adolf Hitler (Germany, 1939-1945) who killed about 12.000.000 people or Jozef Stalin (USSR, 1932-39) whose victims exceeded 6.000.000 people in cold blood crimes. Those figures are still domestically heroes to some, while absolutely modern mass murderers to the rest of the world. Wray and bloomer (2012) mentioned in an essay at the end of his novel Nineteen Eighty Four, George Orwell explains in some detail how lexical choice can be manipulated as a tool of political and personal repression.

2.4 Grammatical standpoint

Different types of impressions can be elicited from different grammatical styles and sentences. Simple clauses or phrases and even sentences have totally different impact on the audience than long ones. Repetitive stylistic writing can also be utilized to stress or make stronger emphasis on certain occasions. How to render that in translation is another story! Translators need to find out how to apply the knowledge of discourse analysis in order to be as accurate and as faithful as they could. Wray and bloomer (2012) stated four questions when approaching text analysis from this angle:

1) Are the sentences of equal length and complexity throughout the text?

2) Is the clause structure always neutral (unmarked), or have particular elements sometimes been emphasized by being placed at the beginning of the sentence or deliberately held back until the end?
3) Have any structural patterns been created by cohesive devices such as repetition or ellipsis, anaphoric or cataphoric reference?
4) Are any of these patterns then deliberately broken to create a particular effect?

They add “Creating and then destroying a structural pattern is a technique employed by many writers to highlight a particular point”

2.5 A practical approach

Different schools of thoughts have been introduced and actually influence translation throughout the last forty or fifty years. Nevertheless, only two strands effectively survived and managed to prove their points of views. These two strands are considered to be pointing towards totally different directions, the first one promote the notion that students of translation are supposed to be taught theories of translation in order to keep up with latest of this discipline, while the second party believe that translation practice outweighs the first notion and that the more translation students involve themselves into more translation practice the more the will get to the core of the discipline.

In this study the author argues the idea that translation is a combination of both theory and practice. The author also defends this perspective by literally translating a medical book from English (SL) into Arabic (TL) as well as working out all problematic areas and the ways they can be solved with. Afterwards, comments on the book and procedure are provided for the reader to verify the technical academic approach used throughout the translation process.
The rule of thumb for this is to give translation students, no matter what their level might be, extensive varieties of courses focusing on principles of translation theories and their fundamentals. Those fundamental topics like semantics, contrastive linguistics, communication strategies, and above all, the idea of equivalence. Mason (1982) suggested some of these theoretical discussions are merely abstract without tangible understanding of down to earth and full comprehension of the text needed to be translated. These practices of teaching translation as a language exercise involve using different techniques accompanied by improving reading skills effectively in order to deal with text while simultaneously encourage the process of language learning. Moreover, such practice would enhance more development in sub skills or stylistics components such as vocabulary, idioms, metaphor, syntax and semantics. Now translation students are supposed to capture all these components from the original text and skilfully deal with them in order to provide better accuracy while rendering to the target language. Yet, and to take this type of text to a more advanced and professional standard, translation process needs to exceed beyond those limited items of activities. The objective of translation training is to elicit, from students, activities which do not merely demonstrate the absence of source text understanding, but which also indicate the readiness of the translation as a publishable work. The most important thing, however, is to demonstrate whether linguistics or, in more specific terms, translation theory, helps students in their translation training.
2.6 Translation as a theory

Plenty of definitions have been recognized. Toury (1980) and others look at it from a semiotic perspective. Others like Tanke (1974) look at it from a communicative perspective in which the translator is interposed between a transmitter and a receiver. While others like Bannani (1981) define it as an interpretation. Moreover, some define it as the final product of problem-solving Diaz (1985). All these views attempt to look at translation as an activity, not as a theory.

Other perspectives have been put forward which consider translation as a theory, a set of rules and principles that are helpful in the analysis of texts. For instance, the theory of translation is a form of comparative linguistics. Translation is "the replacement of textual material in one language (SL) by equivalent textual material in another language (TL)." The equivalence of grammatical categories in the (SL) and (IL) becomes a basis for establishing translation correspondents Catford (1965).

Nida (1964) established his translation theory on the school of transformational generative grammar, which suggests that translators must go beyond explicit text-structure. They should not look at a text as a mere comparison of corresponding structures. The view of language as a generative device is important; it provides the translator first with a technique for analysing a text. It is not only a technique used in the process of decoding the source text but also a procedure for describing the many and suitable generated corresponding structures in the TL.

Newmark (1980) looked at the pragmatic perspective to translation theory and considered it not as a scientific and/or systematic
way of looking at a particular text. It is a science. It is not only a framework of principles and strategies but also a background for problem solving. Translation theory’s main concern is to determine the most suitable translation methods for the widest possible range of texts or text categories.

This school of thought also favoured the approach of contrastive linguistics as useful enough to deal with choices and decisions of the source language text. The contrastive linguistics approach is mainly concerned with the mechanics of the text, the technical aspect of the text. "Translation theory is concerned with choices and decisions, not with the mechanics of either the source language text (SL) or the target language text (TL)” adds EI-Shiyab (1999).

In view of the above, the invalidity of the contrastive linguistics approach is asserted, simply because translation activity is an entirely different activity from contrastive linguistics; the purpose of the contrastive linguistics approach is to focus on the differences between one language and another especially in a language teaching context. It does not focus on establishing a set of rules, principles, and appropriate methods of handling a particular text.

Moreover, the contrastive linguistics approach differs from translation activity in the sense that it is a text-oriented activity. That is, the contrastive linguistic approach focuses on language, whereas translation activity focuses on text.

Best of all, translation has been viewed as a significant pedagogical device, especially when a foreign language is being learned. Widdowson (1980) stated that translation is an effective means
of learning a language. Taking this into account, one may consider the practicality of the contrastive linguistics approach in improving student’s performance in language learning. In other words, the contrastive linguistics approach can be a technique for teaching languages and not for teaching translation activities.

Mason (1982) pointed out that this approach is not to be entirely avoided in spite of what has been stated against the contrastive linguistics approach. At the language level, generalizations, supporting translation principles and rules, can be made. Any consideration of these rules is indeed helpful for making necessary changes in certain contexts. They are also helpful in demonstrating the necessary loss of information contained in structures whose constituent parts are not in a one-to-one correspondence. This can simply be manifested in the different grammatical categories of the two languages.

Along these lines, Jakobson (1957) states that “languages are not different in what they can convey; they are different in what they must convey”. Therefore, the contrastive linguistics approach focuses on these non-equivalences as such, and the theory of translation attempts to demonstrate how these issues are compensated for in certain situations.

2.7 Translation unit

As a translator, it should be made clear that the minimum unit of translation is not a word or a phrase, but rather a text. Any attempt to look at translation in terms of words or phrases would definitely yield unacceptable results. It has been previously suggested that translation is an approach in which one can analyse words into their main
components. This method is known as the 'componential analysis' method. Unfortunately, however, this method by Newmark (1980) has some drawbacks, some of which are represented in its inappropriateness to the training of translators. Second, this approach focuses on semantic distinctive features isolated from context. Also, this method is of limited applicability, simply because a word taken in isolation from its context is not a translation unit. In this connection, it has been suggested that the relevant language unit for translation is not the individual word, but rather the whole text.

2.8 Impact of translation theory

It has been mentioned previously in 2.7 that text is the minimum unit of analysis in translation. Any analysis of the source text consists of inducing information about form and content together with information regarding source, authorship, and aim. The relevant branch that focuses on the analysis as well as the description of texts is called pragmatics. Here, pragmatics refers to the relationship between the sender of the message, the message itself, and the receiver of the message.

There is an on-going constant interaction between the sender, message, and receiver. The aim for which the text is written, and the readership for whom the text is addressed establishes the characters of any text. Here the translator should be able to know whether or not the text is religious, political, literary, journalistic, legal, or technical. Once the text is characterized, the translator is not only identifying the text subject matter, but also delimiting the social context in which the text is produced. Therefore, situating a text in a particular context, and
familiarizing himself with the text and its English equivalents is indeed the translator's first priority.

After establishing the domain of the text, features such as tone, function, and feeling are to be taken into account. Awareness of these will have a great bearing on the translator's rendition of the text. Emphasis should also be placed on the formal features that are significant to the make-up of the text. Such features are important in terms of the text-linguistic and text-function categorizations, i.e., whether the text is persuasive, narrative, descriptive, etc.

Yule (1985) suggests another dimension within text-function, the awareness of the referential meaning of lexes is also significant in determining the nature or domain of the text. Emotive and associative meanings, in this sense, will partly account for text-function. The methods where words are organized in the text are all means of indicating the field, function, and tone of the text. For instance, the uses of contracted forms are indicators to informal English. The use of infinitives is also indicative of instructional texts. These issues are pointers to the texture and structure of the text through which a number of 'speech acts' can be recognized. Understanding the conditions represented for an utterance may give an insight into how language is used.

Widdowson (1980) adds that;

“In terms of the linguistic categories for the translated text, a scientific text may exhibit a series of acts or definitions, classifications, generalizations, and/or qualifications, forming
larger communicative units such as explanations, descriptions, and reports”.

The translator may analyse a text in a way in which its formal features are demonstrated. However, an experienced translator may not need to do that; he may intuitively draw these conclusions. Therefore, a translation exercise should make the translator more aware of the multi-faceted nature of translation. It should also enable him to instinctively single out the text’s linguistic features.

Consequently, any analysis of text may yield information relevant to text-structure. Once this is accomplished, the text-message becomes very clear. It is this message that has to be rendered effectively and communicatively, simply because it may lead the translator to a particular translation method. However, the question remains as to whether the translator should look at this message in terms of its literal vs. free sense, or formal or dynamic equivalence, or whether emphasis should be placed on form or function.

To illustrate the point, sometimes the translator may resort to adherence to the form of the text. This is applicable to literary translation. In these texts, the main concern of the translator is to highlight the effectiveness of the same semantic and syntactic structures of the source text. Important features should be accounted for such as tone, rhyme, rhythm, order, etc. because these are all essential elements to the make-up of texts.

Furthermore, repeated lexical items, nominal vs. verbal sentences, etc., may not remain acceptable items or sentences when translated into English, and this is due to the fact that English has a
particular style that does not sometimes conform to Arabic. What seems to be acceptable in Arabic may not be acceptable in English and vice-versa. This results from the fact that Arabic and English are linguistically and culturally remote languages. In order to produce some publishable work, the translator has to assess the text textually and structurally, and then find the best strategy and style that would yield adequate translation.

2.9 Translation evaluation

Evaluating a particular translated text in its eventual stages keeps the translator restless and maybe anxious to certain limit. This evaluation is manifested in what is called 'a translated text'. Looking at a translated text, the researcher has tried to trace such text from its authorship to its final product. One most significant feature to be considered for as a final product is its acceptability or readability. Acceptability and/or readability have to be evaluated according to the text-producer's intention. To elevate the familiarity of the important aspects of translation, one should view this in line with the communicative theory, as this theory has an important role to play in bringing up the theoretical course. It also introduces the translator participant to the informative theory like the important or the trivial part in a message. It is likely that some of the linguistic and cultural minor parts can be skipped or called lost in translation.

During the process of text assessment, the translator should take into account the intention of the source text and its impact on the original reader. The relationship between author and reader has to be noticed. Moreover, who is the target reader of this translation?
Generally speaking, the translator's main concern is to produce a text that is equivalent in type, strength and response to the original source text.

Lastly, one might consider the pedagogical perspective for the translator participants to utilise both versions of translations; the original text and target text as a comparison. This activity would brainstorm those translation participants to locate problematic area and fine better solutions for them rather locating only common mistakes.

2.10 Translation Approaches, Now and Then

A couple of decades ago, Newmark (1988b) suggested the difference between translation methods and translation procedures. He explains that, "While translation methods relate to whole texts, translation procedures are used for sentences and the smaller units of language" (1988:81). He goes on to refer to the following methods of translation:

- **Word-for-word translation:** in which the SL word order is preserved and the words translated singly by their most common meanings, out of context.

- **Literal translation:** in which the SL grammatical constructions are converted to their nearest TL equivalents, but the lexical words are again translated singly, out of context.

- **Faithful translation:** it attempts to produce the precise contextual meaning of the original within the constraints of the TL grammatical structures.
• **Semantic translation**: which differs from 'faithful translation' only in as far as it must take more account of the aesthetic value of the SL text.

• **Adaptation**: which is the freest form of translation, and is used mainly for plays (comedies) and poetry; the themes, characters, plots are usually preserved, the SL culture is converted to the TL culture and the text is rewritten.

• **Free translation**: it produces the TL text without the style, form, or content of the original.

• **Idiomatic translation**: it reproduces the 'message' of the original but tends to distort nuances of meaning by preferring colloquialisms and idioms where these do not exist in the original.

• **Communicative translation**: it attempts to render the exact contextual meaning of the original in such a way that both content and language are readily acceptable and comprehensible to the readership (1988b: 45-47).

However, another new approach has been evolving with more rationale connected conceptualization of a model of translation. Neubert and Shreve (1992: 13) believe that, “A model is a conceptual construct. It is a logically connected set of conceptualizations of an object of study. It may also be a hypothetical construct”. This means that the model asserts something about empirical (translational) reality which the researcher intends to prove. They also consider that in translation studies several models have been proposed (critical, practical, linguistic, text linguistic, socio-cultural, computational and
psycholinguistic) and argue in favour of “an integrated theory which would bring the various models of translation and the various kinds of translation together in a more encompassing theoretical structure”. Salevsky (2002: 79), along with others, acknowledges the need for a holistic determination of the subject matter of translation studies which calls for the interaction of different variables and the consideration of time factors. In this sense, she totally opposes Newmark’s theory who discards any effort at integration: “translation is a fractured subject which is peculiarly unsuitable for a single integrated theory” Newmark (1991: 105).

Therefore, **product-oriented approaches** (e.g. Komissarov, Koller, House) have been clearly identified and some consensus exists in relation to their emphasis on studying the equivalence relationship between SLT and TLT. **Process-oriented approaches**, as evidenced in comparison between Salevsky’s and Holmes’ conceptualization, have traditionally focused on the discussion of translation either as a communicative process (e.g. Kade, Reiß, Nord) or as a cognitive process (e.g. Krings, Gerloff, Hönig) and both process-related perspectives should be included in an integrated approach. Finally, **function-oriented approaches** (e.g. Bassnett, Toury, Vermeer) should also be taken into account. Thus, to be more rationale and fairer to the listed approaches, the author proposed a holistic conceptual construct onto which diverse issues related to product-, process-, and function-oriented translation approaches can be projected, and within which they can be interrelated.
2.11 Nature of translating medical texts

Nida (1982) established the concept of “reproducing the message” in translation. One must have ample mastery of grammatical as well as lexical capabilities to reproduce the exact message from SL into TL with minimal loss. For example, the word “keys” (208) in this medical text is translated differently as "الحلول" (see p.307). In regular scenario, the author would never think of this equivalent. However, one might simply employ different types of terminology to function as replacements of others according to the suitability of the reproduction. This means, “one simply cannot translate in a completely concordant manner and at the same time accurately represent the meaning of the source-language text” Nida added (1982).

It has been previously suggested that good translation should not read or sound like translation, it should, rather, read and sound natural in the TL just like the ST.

Also, good translation of medical and scientific texts must not be a cultural translation but more of a linguistic translation. However, this does not mean that it should read or sound poor or awkward in its grammatical and stylistic forms. In other words, it should completely avoid “translationese” or total “fidelity”.

2.12 Fidelity in translation

A 17th-century French critic coined the phrase "les belles infidèles" suggesting that types of translations are just like women, they can be either faithful or beautiful, but not both. Ever since the concept of fidelity versus the concept of transparency have become ideals in
translations judging the TL to be have either one. Nevertheless, medical
and scientific translators have only adopted and taken into
consideration the element of accuracy as a major calliper to precisely
gauge translation output throughout the whole texts.
Chapter Three
CHAPTER THREE

Methodology of the study

3.0 Introduction

The theory of translating is meant to assist translators as well as interpreters to do their job effectively. It is a link between translation theory and practice. Then one can assume that what really binds translation theory to translating theory, and translating theory to practice is "naturalness".

Definitions of translation are numerous. Some look at it from a semiotic point of view. Others look at it from a communicative point of view in which the translator is interposed between a transmitter and a receiver. For others, translation is always an interpretation or a convey of meaning. It is the final product of problem-solving. All these views attempt to look at translation as an activity, not as a theory.

Other views handle this issue from different perspective and look at translation as a theory, a set of rules and principles that are helpful in the analysis of texts. For example, the theory of translation is a form of comparative linguistics. Translation is "the replacement of textual material in one language (SL) by equivalent textual material in another language (TL)." The equivalence of grammatical categories in the (SL) and (TL) becomes a basis for establishing translation correspondents.
3.1 The method of the study

The translator, at this point, is applying a mixture of different approaches in translating this medical textbook. Translation approaches like sentence by sentence approach or reading the whole text twice or three times approach suggested in Newmark’s theory, cannot be applied alone here. Thus, an eclectic approach is chosen over a single one. It can be a mechanical one as well. The translation analysis of the (SL) text is a necessary pre-translation step, but it should not inhibit the free play of the translator's intuition. This approach is preferably applicable for difficult texts.

3.2 Participants

3.2.1 Who should read this book?

Any physician assistant who cares for patients who participate in recreational or competitive activities may encounter a person who is using a performance-enhancing substance or technique (such as blood doping).

3.2.2 Couple or single parents who might have noticed drastic changes on their teenagers’ behaviours lately. Those changes can be physical or attitudinal. For example, teens tend to increasingly gain lots of weights in no time and without logical obvious reasons. Other alarmed signs like aggressiveness towards others or tendency to stay alone can be noticed also.

3.2.3 School fellows or peers can also recognise such changes and report to teachers, trainers, administration or directly to the parents.
3.3 The material of the study

3.3.1 What are enhancing substances?

In a 2005 policy statement, the American Academy of Paediatrics defined performance-enhancing substances as follows:

“A substance should be considered performance enhancing if it benefits sports performance by increasing strength, power, speed, or endurance (ergogenic) or by altering body weight or body composition. Furthermore, substances that improve performance by causing changes in behaviour, arousal level, and/ or perception of pain should be considered performance enhancing”.

Many OTC (Over-the-counter) products are marketed for their performance-enhancing properties. Furthermore, additional products are available through special providers. These ranges from so-called power foods to nutraceuticals and are often consumed in higher-than recommended amounts when used as performance enhancers.

3.3.2 Caffeine is the most commonly used performance enhancer. Eight ounces of brewed coffee contains 60 to 120 mg of caffeine. The caffeine concentration in caffeinated beverages ranges from 0 to 141 mg/serving. Both habitual and acute caffeine consumption increase BP (Blood Pressure). The effects of caffeine on cardiovascular and endothelial function are still under investigation. Because caffeine is ubiquitous in Western diets and in many dietary supplements, evaluation of persons
with cardiovascular symptoms should include asking about caffeine consumption and use of supplements. Some serious indicators of possible supplement abuse include syncope, arrhythmias, hypertension, antisocial aggressive behaviour, and impaired renal function. Tendon injuries may occur with anabolic steroid abuse, and impaired hematologic parameters may suggest erythropoietin or diuretic abuse.

3.3.3 Human growth hormone (HGH) has the potential for abuse because of the high cost of effective detection tests and its relatively short half-life.

3.3.4 Erythropoietin injections have been used illicitly to increase RBC (Red Blood Count) production and thus improve oxygen-carrying capacity and endurance.

The World Anti-Doping Agency (WADA) is an independent agency funded by international governments and sports federations to coordinate and monitor the fight against doping in sports. Hundreds of prescription drugs, as well as creatine and many OTC products, are banned by WADA. The list includes diuretics, which are used for weight loss and to mask illicit drug use; beta-blockers, which aid performance in target sports such as archery and curling anabolic steroids; amphetamines; erythropoietin; and HGH. The evolution of DNA (Deoxyribonucleic Acid) technology for medical therapy is paralleled by gene-doping strategies developed throughout
the world. Targets already identified for gene-doping include peroxisome proliferators-activated receptor-delta, which can modulate energy utilization, and myostatin inhibitor genes, which can increase muscle bulk.
Chapter Four
CHAPTER FOUR

Procedure, Data analysis, and Discussion

4.0 Introduction

This is the chapter where the researcher analyses, interprets and presents the data that have been gathered during the research process. Undoubtedly, the researcher is going to show exactly how he deals with problems encountered while translating the medical text and also provides examples of handling and solving those problems from the same book rendering best meaning from SL into TL. The researcher is giving general examples as to differentiate between English language environment and Arabic language environment in terms of culture (since these two languages are not sister languages) then adds the linguistic and semantic equivalent that best suits the medical text in the TL. Lastly, the author discusses the historical background where other translators have created, innovated and amalgamated different types of strategies to fulfil a better translation procedure.

4.1 Procedure

Translation is globally human significant science, yet often a neglected element in people’s life. It has established a decisive share in the development of languages like English, especially by promoting the flow of ideas and the spread of the literary forms in which they have been expressed: for example, Homeric poetry from ancient Greece and the Bible translated from Hebrew and Greek. Louis Kelly the Canadian
A historian of translation has observed that 'Western Europe owes its civilization to translators' (1979).

Translation derives from the universal need for mediation between speakers and writers of different languages. It depends on bilingual competence as well as different distinctions that are commonly relevant, none of which represents absolute positions, but rather end-points in an appropriate continuum. These include:

1. Translating and interpreting.
2. Word-for-word and free translation.
3. Literary and technical translation.
4. Professional and pedagogical translation.

Among those five distinctions, translators dwell on holding strings tight from one position while letting them loose at the opposite ends. This usually takes place in situations like this one. So, playing the mediators role while endeavouring to move the concept from one language to another, needs this type of translators’ expertise to be activated and always on the edge. Not to mention the oddness of the source language concept to the target language as the case here indicates (English-Arabic). Consequently, some problems may arise on the way and it is the translators’ responsibility to professionally overcome those problems. Problems in this area can broadly be classified into categories; these involve (1) finding the perfect
equivalent, (2) cultural differences, (3) the equivalent use, (4) gender
distinction, (5) environmental differences, (6) idioms and fixed
expressions, (7) tenses and (8) lexical items.

4.2.1 Finding the perfect equivalent

Translators and interpreters frequently encounter this sort of
problem, especially when dealing with scientific or medical genre. They
should bear in mind the ultimate goal of translation which is to convey
the professional meaning not the literal one. So, scattering all possible
equivalents in front of the translator then adapting better ‘nominees’ in
a certain sentences would be a challenging task whatsoever.

In this sense, it is known that there are quite a number of words
that do not have straightforward equivalent, neither from English into
Arabic nor the opposite. A hundred years ago, Bagehot wrote that
‘Language is the tradition of nation. People tend to keep repeating
phrases included by their fathers, true in the time of their fathers but
now no longer true’. Moreover, Newmark (1988a) mentions the notion
of the ‘no-equivalent’ word and considered Faust’s famous struggle to
translate the context-free word ‘logos’. He adds ‘to write off as
‘untranslatable’ a word whose meaning cannot be rendered literally
and precisely by another word is absurd’ (1988a:78). So, one comes to
believe that word-for-word translation is not usually the case especially
here in this scientific or medical text where one finds this procedure
partially and directly unreflective according to the culture and features
of the target language.
Therefore, translators find themselves obliged to roundabout this concept and utilize different techniques to convey the appropriate meaning according to the specific situation in a specialized context. For example,

“Everyday dozens of companies manufacture fake steroids”

In this example, although the equivalent does exist for the word ‘dozens’ which means a set of twelve, yet, translators will be reluctant to translate it as such. The context would rhyme in the source language but absolutely not with the target one. Looking into the closest number in the target language, one finds the word ‘tens’. With the generic sense of the translation and according to the overall number of companies, the researcher finds himself not confined to represent the exact number presented in the source language, as the sentence would indicate a large number of companies manufacturing this type of drug.

At last, these sorts of issues like finding too many equivalents in the target language or not finding any except only one spur the translator has to exert more efforts to solve the case. Calling for help or using different types of resources like the internet translation sites or online dictionaries (mono dictionary or bi dictionary) might not be of great assistance particularly with scientific and medical texts.
4.2.2 Cultural differences

Finding an equivalent or semi-equivalent wordings in the target language needs a bit of searching and consulting a different variety of resources, knowing that there will be some or at least one appropriate meaning. On the contrary, looking for an equivalent word that represents totally unfamiliar concept in the target language makes the translator’s job harder.

For example,

‘Girlfriend / Boyfriend’

Everyone knows, the western society accepts the idea of having a ‘relationship’ between a girl and a boy since the early stages of their lives at school. Their life style and within schooling and educational system welcomes it so they do not only accept the idea but they actually promote for it. This puts the translator in a huge dilemma. Either he betrays the source language while conveying the distinctive features shared in the west about it, or starts shooting filthy concepts at the target language which leaves the audience in the middle of nowhere trying to guess or trying to come up with the notion behind the scene.

Mentioning that they are couple (husband and wife) and that they are actually (married) may not reflect the exact conceptual aspect of the term but at least can convey eighty per cent of that idea with minimum damage to both source and target languages.
One way out to solve this sort of inconvenience is to foot-note or end-note the new concept. Elaboration might help the reader to fully comprehend the source culture through the translator’s eye without injecting inappropriate and irrelevant materials to the target text audience.

Lastly, a culture word should be translated by a culture word if available. Sometimes translators focus on the affections and sentimental elements of the source language according to their strong background for nothing in particular except that the context dictates such practice. This practice may not only lead the translator astray, albeit can also distort the beautiful picture of transferring the included message of the source language. Consequently, one needs to deal with semantic characters of the source text with high sensitivity dealing only with substantial meanings and pay a lot of attention not to overload the target language with partially distorted picture.

4.3 The equivalent use

Some languages have a variety of sophisticated rules of language style when using its lexis. English for instance, have a set of totally altered scheme of levels in which the writer or a speaker can adopt in his book or in his speech.

a- Formal: Official and Legal.

b- Semi-formal: Professional and Friendly.

c- Informal: Slang and Vulgar.
While this exists in Germanic languages like English, Arabic language does not share the same features. Standard and non-standard Arabic are the two variations of styles of course not to mention the Quranic style which is a living miracle that nobody whatsoever can mimic or adopt no matter how much effort or endeavour one might exert.

Nevertheless, Arabic language can deal with this variation of levels to English language while translators might seek appropriate strength of the equivalent to fulfil and render their meanings in the target language. Here the researcher tries to trim down some formal and informal usages of both languages and the way he presented some of them in the translated text.

**Table 4.1 Formal and informal equivalent**

<table>
<thead>
<tr>
<th>FORMAL ENGLISH</th>
<th>STANDARD ARABIC</th>
<th>INFORMAL ENGLISH</th>
<th>NON-STANDARD ARABIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>prudential</td>
<td>متعقل</td>
<td>Careful / Cautious</td>
<td>حريص</td>
</tr>
<tr>
<td>Garments</td>
<td>كساء، ثوب</td>
<td>Clothes</td>
<td>ملبس</td>
</tr>
<tr>
<td>Inform</td>
<td>يبلغ</td>
<td>Fill me in</td>
<td>يخبر</td>
</tr>
<tr>
<td>Entail</td>
<td>يستلزم</td>
<td>Involve</td>
<td>يضم</td>
</tr>
<tr>
<td>Exceed</td>
<td>يتخطى</td>
<td>Go over</td>
<td>يتجاوز</td>
</tr>
<tr>
<td>Pursuant to</td>
<td>طلبًا لـ</td>
<td>In accordance with</td>
<td>بموجب</td>
</tr>
<tr>
<td>peruse</td>
<td>يطالع</td>
<td>read</td>
<td>يقرأ</td>
</tr>
</tbody>
</table>
4.4 Gender distinction

Gender distinctions are generally more relevant in translation when the referent of the noun or pronoun is human Baker (1994) states that:

“It is a grammatical distinction according to which a noun or pronoun is classified as either masculine or feminine in some languages. The distinction applies to nouns which refer to animate beings as well as those which refer to inanimate objects”.

Every language has its peculiar sets of rules to reflect gender. For instance, Arabic language distinctions apply to both second as well as third person pronouns (singular and plural). Moreover, Arabic, grammatically speaking, has different forms of the pronoun like ‘you’. So, this pronoun ‘you’ can be masculine or feminine as well as it can be singular, dual or plural. To make it more sophisticated, both classifications can be joined in one form. Which means singular masculine, singular feminine, dual masculine, dual feminine, plural masculine and plural feminine are considered different variations of the pronoun ‘you’. The following table explains this more;
### Table 4.2 Gender distinction (English/Arabic)

<table>
<thead>
<tr>
<th>YOU =</th>
<th>أنتمْ</th>
<th>أنتما (المذكر) المثنى</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Anta</td>
<td>Antoma (mus.)</td>
</tr>
<tr>
<td></td>
<td>Ante</td>
<td>Antoma (fem.)</td>
</tr>
<tr>
<td></td>
<td>Antom</td>
<td>Antonna</td>
</tr>
</tbody>
</table>

Not only that, Arabic gender distinctions are not only reflected on nouns as well as pronouns but it can also be reflected in the concord between them and their accompanying nouns and adjectives. In translating cliché nouns in our text into Arabic, the translator would normally have to choose, as far as gender is concerned, between a masculine or a feminine form for each noun. Just like most languages, the masculine form is the unmarked form in Arabic and is usually chosen in sport texts by default. However, using anabolic steroids which are predominantly used by men rather women especially in the Arab context would lead translators to deal with this situation from highly marked masculine point of view. The translator feels the necessity to make both masculine as well as feminine reflections on that particular noun(s) inclusive and since it is time for Arabic reader to be abreast of the recent updates in the local and international world of feminine sports. This example is from the translated text below:
Despite the dangers, John and many other athletes like:

is rendered as:

(بالرغم من المخاطر، مازال جون والعديد من الرياضيين والرياضيات الآخرين)

4.5 Environmental differences

When translating from one language into another, translators by definition do not only convey the exact meaning of SL into TL, they also transfer a lot of thinking as well as ideologies been practiced in the SL atmosphere to match or nearly reach the TL atmosphere. It is the translator’s job to lessen that impact and make it easier to be read, accepted and digested by his audiences to the utmost especially if these two languages do not have a lot in common nor share similar characteristics or simply come from absolutely two different directions.

A very good example of one aspect of peculiarity in the western environment is the existence of the word ‘snow’. Snowy is only introduced to Arabs world via fridges tops (freezer) particularly those who live close to the equator (Saudi Arabia, Qatar, Oman, Bahrain, UAE, etc.) On the other hand, westerns enjoy cold weather and accordingly they name it with its enormous variation.

In the following example the researcher is including quite a few samples of each to demonstrate language-environment relationship.

<table>
<thead>
<tr>
<th>Table 4.3 Types and names of snow</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Artificial Snow</td>
</tr>
<tr>
<td>2. Baby Heads</td>
</tr>
</tbody>
</table>
3. BBs
4. Blower
5. Boilerplate (see Bullet-Proof)
6. Boot-Packed
7. Bottomless
8. Buffed
9. Bumped Up
10. Bumpy

By the same token, one finds Arabs (especially tribal groups of people inhibiting the deserts) cuddling with their camels to the fullest. They live with them in the desert, use them for transportation, race them, write poems in them and eventually consume some of them in festivals. Those Arabs have developed very sophisticated and systematic names of camels according to different features.

<table>
<thead>
<tr>
<th>Tables 4.4 Types and names of camels</th>
</tr>
</thead>
</table>

1- According to age

فإذا كان للحوار تسعة أشهر، أو ثمانية فهو (أفيل) ، والأنثى (أفيلة)
فإذا اتت عليه سنة بعد حق فهو (جذع).

2- According to colour:

- أدم والأنثى أدماء: إذا كان البعير خالص البياض.
- العيس: إذا خالط البياض شفره بسيطة وقيل أعيس والأنثى عيساء.
3- According to cohort:

- الزيمة: القطعة من الإبل أقلها البعيران وأكثرها الخمسة عشر والجمع زيم.
- الجول: القطعة من الإبل والتي تقدر بثلاثين أو أربعين.

4- According to parentage:

- الأموية: نسبة إلى بني أمية.
- العيسية: نسبة إلى بني عيس.

That is not all. Arabs still have got a lot of sub-categorizations and sub-classes for the beloved camels in which the author cannot find places to fit them in this academic piece of work so it’s worth only mentioning. They also classify camels according to their body-build, features, milk production, walking, voices and stigmatising.

It is also worth mentioning that all those names Arabs have adopted for long are purely standard Arabic language and all native Arabs can recognise. Unlike the English example, some of those names mentioned above can be colloquial, while others can be different dialects that even native English speakers can hardly recognise.

4.6. Idioms and fixed expressions:

Unless the translator is very much well versed, culturally motivated and highly integrated to both source and target language, he would strive to follow up with the recently evolving patterns of the language. All languages undergo systematic addition, deletion and alteration, and no one can stop that. Technology contributes a lot to these kinds of changes. People daily speak the internet language, utilise
top-notched peripherals, send assignments as emails, and discuss with their students the latest gadgets infield.

With all these techno-savvy phrases and expressions introduced in the field, others non-techno-savvy retire for good. A decade ago, experts would classify software according to how many ‘cows’ it gained during the ranking process. So, “it has only two cows” means at the bottom of the list, low ranking, according to a ranking site called tucows.com.

Moreover, expressions like "Sound like a broken record", "Kodak moment", "Drop a dime", "Let's see what develops", "Hold the line", "Front-page news", Got our wires crossed" or "Hit the airwaves" are not being put in use anymore. They are exchanged for others much more commonly used by people nowadays and much more widely acceptable and comprehensible.

To sum up, it is the translator’s job to stay in touch with the type of language people currently interested in and commonly put in use in order to get the kind of integrity as well as loyalty to both source and target language. Failing to do so, he would be in deep water, swimming against the current and sound like an alien on earth, making none sense of all awkward literal type of translation.

4.7. Tenses
Not all languages have the same pattern of systematic distinction among their grammatical set of rules. Some languages, for instance, have a very accurate system of time reference than other languages.

One can’t regularly find a precise equivalent or what is called one-to-one equivalent for all English tenses to render them exactly in Arabic. Present as well as past perfect tenses along with progressives in present and past can never be rendered with the same weight they have in the original language. Ghazala (2003) suggests solutions for these problems as follows:

4.7.1 The present and past perfect tense;

The direct, easy and proper way of translating these two tenses is to regard them exactly as past tenses. The following examples are given;

I. We heard the news.
II. We have heard the news. (لقد/ قد سمعنا الأخبار)
III. We had heard the news.

4.7.2 The past progressive tense:

I. "I was playing football and looking for a scholarship”; (102)
( كنت العب كرة القدم بحثاً عن منحة دراسية)
II. “He explained why he and other teens were willing to use these drugs” (92);
The past progressive (was/were + ing) is translated into (كان) along with the present simple of the verb in Arabic.

4.8. Lexical items

Moving lexical items from one language into another need lot of attention to be carried out beyond that of general knowledge of the literal meanings provided by handy resources. The keen distinction between SL and TL types as well as families should be put into great consideration.

Many articles debated literal vs. nonliteral or figurative language, but the question still exists. Are these utterances processed the same or different and whether they follow the same comprehension route or not? In the graded salience hypothesis Giora and Rachel (1999) discussed the priority of salient meanings and concluded with good results but unfortunately that is beyond the scope of this study.

To simplify the process, figurative language can be referred to the following main figures of speech;

4.8.1 Simile:
Simile is an expression of comparing one thing with another, always including the words ‘as’ or ‘like’;

(My arms were so solid it was unbelievable. I mean they were like bricks). (103)

"كانت ذراعي صلبة جدا لا يمكن أن أصدق. أعني أنهما كانتا مثل الحجر" (159)

4.8.2 Metaphor:

Metaphor is a figure of speech in which an implicit comparison is made between two unlike things that actually have something in common. For example;

(His cholesterol level skyrocketed to more than four hundred) (119)

"إرتفع مستوى الكولسترول لديه إلى عنيف السماء لأكثر من أربعمائة" (177)

4.8.3 Pun:

A pun is the use of a word or words that either have multiple meanings or sound like other words. For example;

"Roid rage" (100)

"هيجان الاستيرويدات" (155)
4.8.4 Metonymy:

Metonymy is a figure of speech in which one word or phrase is substituted for another with which it is closely associated. For example:

"I had this one kid, fifteen years old-I made a monster out of him" (107)

"جاني الّ هذا الطفل بسن الخامسة عشر، فجعلت منه وحشاً" (163)

4.8.5 Word play:

Word play is the manipulation of language (in particular, the sounds and meanings of words) with the intent to amuse the reader. For example;

"My strength isn't my strength anymore" (120)

"إن قوّتي لن تعد كما كانت بعد الآن" (178)

4.8.6 Irony:

Irony is the expression of one’s meaning by using language that normally signifies the opposite. For example;

“No one will ever know exactly why Eric hanged himself. But steroids certainly did not help" (102)

“لن يعلم أحداً أبداً بالضبط لماذا شنق إيريك نفسه. لكن بالتأكيد لم يساعده استخدام المنشطات" (157)
4.8.7 Proverbs:

A proverb is a short saying in frequent and widespread use that expresses a basic truth or practical precept. For example;

"Justly Rewarded?" (104)

المكافأة بعدل؟ (160)

4.9 Discussion

Throughout recent history scholars have put lots of efforts trying to define translation. Lewis (1958) refers back to its etymology from Latin “trans+latus” which means “carried across”. In the same year Foster comes up with different point of view totally neglecting the aspect of culture in translation. He defines translation as the act of transferring through which the content of a text is transferred from the source language into the target language only. Catford (1965) considers translation as a replacement of textual material in one language by equivalent textual material in another language. His focus is apparently merely textual equivalent.

A decade afterwards, Brislin (1976) defines translation as:

“The general term referring to the transfer of thoughts and ideas from one language (source) to another (target), whether the languages are in written or oral form; whether the languages have established orthographies or do not have such standardization or whether one or both
languages is based on signs, as with sign languages of the deaf”.

While Willss (1982) refers to translation from his point of view as

“Translation is a transfer process, which aims at the transformation of a written SL text into an optimally equivalent TL text, and which requires the syntactic, the semantic and the pragmatic understanding and analytical processing of the SL.”

Newmark (1988) describes translation as "a craft consisting of the attempt to replace a written message and/or statement in one language by the same message and/or statement in another language.”

Hatim and Mason (1997) consider translation as “an act of communication which attempts to relay, across cultural and linguistic boundaries, another act of communication”.

Whereas Galibert (2004) points out that translation is “an understanding to people in their own language and create the same impact as the original text”.

One of the latest of translation definitions in the field is expressed by Larson (1998). He defines translation as “the communication of the meaning of the source-language text is by means of an equivalent target-language text” thus he incorporates the element of language with
the element of culture. So, he adds “translation is no longer considered to be a mere cross-linguistic activity but it significantly is cross-cultural communication”.

So whenever ‘civilized communities’ suffer teen athletes’ drug abuse, less civilized communities might expect the same phenomenon at their door step or even worse than that because all of them are sailing on the same boat. Therefore, scientific translated books like this one discussing what is going on at high schools in the west can be beneficial to the Middle East or even the Far East high schools coaches, teachers or parents in general.

Recent global conceptualization tackling medical as well as technical translations genres have played enormously the role of contrastive analysis among different languages. Thus, various methodologies as well as techniques in translations have been developed to yield piles of scientific and technical documents. Those translation strategies for scientific technical or medical terminology are sort of culture-bound terminology ranging from the target language to source language. Nevertheless, the same language may have different variant of scientific or medical languages. For instance, medical English used in the US is totally different from the one used in Europe. Those various schools like the American school or the European school or even the Far East medical schools have quite different medical language with different system of medical concept.

Therefore, researchers as well as translators came up with several strategies to deal with this scenario of translating scientific terminology.
Best translators’ handy weapons for such genres are the bilingual scientific or technical dictionaries which provide “best-known-used” equivalent term in the target language. Now if that sort of terminology is culturally bound term and ascribed to the source language then, translators deal with it as will be mentioned later on in non-straightforward areas of translation, but if translators manage to locate that unique equivalent in the target language, then translation can flow smooth and be called straightforward.

Harvey (2000) suggested the most common strategies to deal with legal translation. He mentioned functional equivalence, formal equivalence, borrowing and description (paraphrasing).

4.9.1 **Functional equivalence** is a type of strategies that use the TL concept, the function of which is similar to that of the SL language. With some pros and cons; this type of translation allows readers to relate the source language system with target language system and to “access the unfamiliar through the familiar”

4.9.2 **Formal equivalence** is basically linguistic or literal translation preserving semantic content of the SL term intact, and then presenting it in a natural form in TL. Clarity and availability of the formal equivalence in TL lexical system makes it favourite and gives this strategy advantages over other strategies.

4.9.3 **Borrowing** strategy uses a transcribed (transliterated) or an original form of the SL terminology (neologism). Some explanations should accompany the term into TL. Although some scholars might adhere to the use of this technique in translating scientific documents,
others like De Groot and Van Laer warn against it as they have no etymological correspondence in the TL.

4.9.4 Description constitutes paraphrasing; brief explanation of the meaning of the term is needed. The good thing about this technique is that the reader does not have to worry about or consult any further resources; he could perceive the meaning at once after reading that explanation.
Chapter Five
CHAPTER FIVE

Conclusion, Findings and Recommendations

5.1 Conclusion

In retrospect, scientists across centuries have not unanimously agreed upon the essence of translation and whether academic translation practitioners or freelancers can be classified as linguists who mainly deal with theories, subjects, figures and usually come up with definite results, or inject it as a branch into irrelevant colleges such as social sciences, humanities, arts or maybe merely recognise it as a stand-alone discipline related sometimes and overlaps other times to all other respected areas of human knowledge.

In the recent history, translation studies have taken new dimensions, starting by Holmes (1972/1988) who recognised translation as a discipline with theoretical and practical interests with a typology of product-oriented, process-oriented, or function-oriented. Unfortunately, as Holmes does not provide an overall integrated framework to translation dealing with the communicative and pragmatic nature which can be unavoidably considered crucial dimensions of translation, these initial attempts at devising a holistic approach to the discipline have not met neither scholars’ nor audience expectations. This vivid situation has encouraged modern researchers to coin their own definition of translation and quite recently Jacobson (2012) states that translating can be defined as a complicated linguistic
and cultural human activity that should be apprehended in the form of a communicative process, this process takes place in a socio-cultural context, where social and psychological determinants are activated by the participants, and whose communicative activity is materialized in linguistic products.

Translation studies with the most recent and the finest typology can, therefore, be perceived as independent discipline with three different dimensions;

1) Product-oriented (mostly linguistically-oriented with emphasis on the equivalence relationship obtaining between SLT and TLT)

2) Process-oriented (pragmatically-oriented with emphasis on the communicative or the cognitive nature of translating).

3) Function-oriented (culturally-oriented with emphasis on the conditions of reception by the TL readership).

5.2 Findings of the study

Translators, interpreters, practitioners as well as prominent polyglots and scholarly writers have always adopted and put to practice an appropriate type of well-formed methodology to smoothly and accurately render all aspects of the translated materials from the source language (SL) into the target language (TL). They, for sure, know that translation is a very effective method of communication human beings have developed and adopted over years, perhaps the most effective one too. Yet, various communities are still, nowadays,
strongly relying on translation. In this sense, one can define translation as a process that has significant roles in globalizing ethic habits, customs and religious values of individuals living in different communities.

SL as well as TL of any genre (e.g. literary, everyday conversational or scientific) usually have the same textual dimensions, i.e., pragmatic, semantic, stylistic, and semiotic. The content of each dimension will vary from close resemblance to total differentiation. Therefore, and to meticulously tackle these dimensions, one should employ intellectual tools of genuine translator. The author, in this work, finds out the most convenient approach to transfer this medical text from English into Arabic readership, and he totally agrees with Sykes (1968) who suggested handful tools to be employed in order to produce intellectual type of medical translation; these will be elaborated on below.

1- Knowledge of the Source Language

The translator should have a full knowledge of the source language; he should not necessarily be a native speaker of the language, however he must be aware of all aspects of it along with an appropriate grasp of the taste of the source language. Some relevant abilities are:

(a) The recognition of words and their characteristics, as lexical units, including the variety of meanings possessed by a word
(b) An appreciation of the level of style indicated by the choice of particular words and phrases and modes of expression.

(c) An awareness that words in different languages may more or less correspond while not being exactly equivalent.

(d) An understanding of the grammatical structure of the SL, adequate to identify the inflected (non-dictionary) forms of words and their implications for the meaning, to draw conclusions from agreement or otherwise in gender, number and case (since languages having these features often make use of them in order to clarify wording that would otherwise be ambiguous.

(e) Sufficient familiarity with life in the country or countries where the language is spoken to be able to grasp any allusions in the text which are not fully explained there, because of being familiar to most readers of the SL.

2- Knowledge of the Target Language

It is highly expected from the translator to master the target language(s) inside out. In best scenario, TL should be the unconscious practice of rendering from the learnt language to this TL. However, exceptions do exist with good translators who handle TL with high speed of correctness and accuracy. Some relevant abilities are:

(a) The proper choice of words; the recognition of distinctions in meaning between nearly synonymous terms or terms of similar appearance, of differences in the register of
usage over the whole range from very formal to very informal, of differences in the field of usage over the whole range from very technical to entirely non-technical; the ability to use the right form of inflection of nouns, adjectives and verbs; and indeed the ability to know which of these parts of speech is the best choice in a given context- this being not necessarily the same one as in the source text.

(b) The proper choice of word order; the recognition of the differences in emphasis and tone, and even in meaning, resulting from a change in the position of words.

(c) The proper choice of punctuation; the recognition of the differences in emphasis resulting from a change in the punctuation marks used.

(d) Knowledge of the type of language appropriate to particular types of document, such as patents or publicity material, and the ability to compile a translation text in accordance with it, with the right amount of either rigorous adherence to a uniform terminology, or attractive variation in modes of expression.

(e) Quick retrieval of items from one's stored mass of knowledge about the TL, without having to hesitate or agonize over what is relevant to a particular translation problem.

(f) Where the TL is to be spoken by the translator, adequate fluency and correctness of expression.
3- Knowledge of the Subject

It has always been suggested that translators must not only be familiar with the subject matter but should also remain abreast of all development in time by educating themselves through scientific readings of general and specific books, periodicals and newspapers related to language and its current issues.

4- Applying personal knowledge

Translators at this stage should go through the text to be translated and explore it in different ways. This sort of quick analysis might give them a general impression concerning the genre of the text, full comprehension of the text, style they should use, spotting problematic areas to be solved, and how to deal professionally with these problems in the TL. Even accuracy of translation can vary from under-accurate to over-accurate. At this stage, translator may consider topics related to accuracy like;

(a) The correct choice of technical terms, whether in the subject field of the text or occurring in isolation within a text on a different subject.

(b) Care in ensuring the avoidance of accidental omissions or insertions which would alter the meaning.
(c) Care in noticing definite or possible errors in the SL text, ranging from misprints and badly photocopied passages to the accidental inclusion of a passage in two different places.

5- Translators’ capabilities

One should realise that translators are human beings after all, they are not machines, therefore, personalities that entail capabilities to achieve certain role in translating specific type of text maybe expected and noticed. This effect of the translator’s mind can be reflected and deducted with a figure printed stigma of being among the introverts or extroverts. Sykes (1968) adds;

“The convergent mind, which moves in to the kernel of a problem from various directions, is that of the technical translator, who needs to have considerable deductive ability on occasion; the divergent mind, which thinks outwards, is more suited to literary translation.”

5.3 Recommendations

1- Translating medical books that deal with adolescence as well as teen’s problems and making them available to parents at high schools libraries to increase the cultural awareness of the problems even before they take place or at least be ready to fight them.
2- Medical and scientific terminologies are peculiar as well as culture-bound to SL system. So, the notion of merely transferring the most available resources of equivalent is absolutely rejected.

3- Translation enthusiasts are required to get the grips with cognitive, communicative as well as eclectic approaches to gain the appropriate knowledge of assessment towards the text function and translation audience.

4- The concept of adopting medical terminology of SL and orient TL recipients to assimilate the SL medical terms into the target language and medical system as well.

5- No matter how much effort has been invested to facilitate translation process, by using multiple-intelligent software technologies, the authentic endeavours of enthusiasts along with human final touch seem still stands, so far, to be the rule of thumb.
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Electronic sites


Appendices

Appendix A

"STEROIDS DRUG DANGERS"

By

Judy Monroe

English version
1- John’s story

John began bodybuilding when he was fifteen. Soon he became a prizewinning football star. A kind, gentle man, John knew he was a role model to his two children and to the dozens of young people at the gym where he worked out. So he ate healthful foods and never smoked cigarettes or drank alcohol. His marriage was strong, he had lots of friends, and he was admired by many people.

John did not know it yet, but at age thirty-five, he was very sick. And he had caused his own illness. What had he done?

After he turned thirty, John decided to try to keep his large, powerful body from aging. He wanted to keep his muscular build and great strength. John weighed 220 pounds and stood six feet two inches tall. So for at least three years, he took anabolic steroids. The drugs were sold to him and others out of a suitcase.

John went to the gym every day. After he opened his locker, he would take out his drugs and equipment and find a private place to inject himself with anabolic steroids. Then, he would work out and help other athletes and teens. One friend, Bob, remembers that when John would first see him, John always shouted the same thing: "Hi Bob; when’re you gonna let me show you how to put some muscles on that skinny body of yours?"
Despite the dangers, John and many other athletes like him often use needles like this one to inject liquid steroids.

John became extremely sick as a result of steroid use. He developed a rare kidney tumor, and the tumor turned into cancer, which spread to his lungs and other organs.
Now; Bob was visiting John in the hospital. John had become extremely sick. His doctors finally found the problem—a rare kidney tumor. The tumor soon turned into cancer and spread to his lungs and other organs.

John went through chemotherapy (a series of treatments using very strong chemicals) to try to kill his cancer. The powerful chemicals used in chemotherapy made John nauseous. He vomited a lot. His throat was so irritated that he spit up blood.

In the hospital, Bob was shaken by John's ill health and how he looked. John lost nearly one hundred pounds. All his thick black hair fell out. Even his heavy black eyebrows disappeared. His wrinkled dry skin hung and was ash-green. Bob heard his friend "gasping for air, his voice a hoarse whisper almost unintelligible as he greeted [him] the way he always had.

One day after Bob's visit, John died. Anabolic steroids had caused the rare type of kidney tumor that eventually killed John.

2- Society and Steroids

Anabolic steroids, usually called steroids, are powerful drugs. They are a form of testosterone, a natural male hormone. (Hormones are the "chemical messengers" in men's and women's bodies. They control such body activities as growth, development, and reproduction.) By taking steroids, a person can create a lean, muscular, strong body quickly. There are significant health risks, however. That is why the use of steroids without a doctor's supervision is against the law.
Steroids Hit the News

Shock roared through the sports world when Canadian sprinter Ben Johnson lost his gold medal at the 1988 Summer Olympic Games. He had broken the old 100-meter dash record. He had even beaten Carl Lewis from the United States.

Lewis finished second, in 9.92 seconds, just .13 of a second behind Ben Johnson.

After the race Ben Johnson tested positive for steroids. He had taken a steroid called stanozolol. When this news was announced, his gold medal was taken away and given to Carl Lewis. The Canadian superstar was further punished by not being allowed to run in international races for two years.

These people are running for recreation and fun. But sometimes, professional runners take steroids to create a lean, muscular, strong body as a way to win races.
Ben Johnson's disgrace brought international attention to the illegal use of steroids among world-class athletes. The International Olympic Committee had officially banned steroids in 1975. Despite the ban, however, athletes still used them. Other athletic associations soon followed. At first, athletes were told when they were to be tested; they stopped taking drugs, including steroids. If athletes know when the test will be done, they can stop taking the steroids in time for the drug to get out of the body. So steroid usage among athletes "appeared" to be low.

The International Olympic Committee officially banned steroids in 1975.
Then, "surprise" steroid tests were given at some of the 1984 Olympic sporting events. The results? About half the tested athletes had taken steroids. It was not until 1988, though, that the media brought worldwide attention to steroid abuse. For a superstar like Ben Johnson to be stripped of his gold medal because of using steroids was big news.

Today, most major amateur and professional athletic organizations ban steroids. Yet in spite of the many health risks, athletes and non-athletes continue to use them.

**Who takes Steroids and Why?**

Professional and amateur athletes are probably the largest group of steroid users. Many teen athletes try to excel in a sport so they can get a college scholarship. Some teens use steroids to increase their weight, strength, and muscle.

Other people take steroids to boost their confidence or aggressiveness. For example, police officers, firefighters, or construction workers may take steroids to look bigger and tougher. Teens take steroids not just to excel in sports, but also to "perfect" their bodies. Many teens take steroids to help them build muscle fast.
"Tom" (not his real name), a high school student and an athlete, used steroids. He explained why he and other teens were willing to use these drugs. "Kids see the well built guys on TV getting the girls and the respect from the guys and they want that, too."

Serious weight lifters often go to local gyms. So do teens that are into bodybuilding. There teens meet adults who use steroids to build muscle and bulk up. One teen, age seventeen, said, "Our role
model is this older guy, the biggest guy in the gym. . . . He weighs 290 pounds without an ounce of fat ... that's our goal."

Steroid use is not limited to anyone group of teens. Teens from rich, middle-class, and poor families use them. Young people of various races, whether they live in cities, towns, or rural communities, use them. "You see anyone in high school who is big-has ripped mass [large, rippling muscles], the curl in the biceps, the veins-and you know he's on it. He's juiced [taking steroids]," said one teen steroid user,"
Males make up the majority of teen users. However, more and more females are using steroids. Their goal is to lose fat and gain muscle. Use of steroids is especially high among teen girls who are into athletic activities such as track and field, soccer, basketball, volleyball, and school dance and drill teams.

No one really knows exactly how many teens use steroids. Because the use of steroids in sports is illegal, it is hard to keep track of exact numbers. One high school coach in Boston told a group of doctors that none of his players took steroids. But one of his players was listening. The teen stood up and told the shocked listeners that seventeen of the coach’s top twenty-two athletes were on steroids.

The Numbers ---American Teens Who use Steroids

• Between 5 percent and 12 percent of male high school students and one percent of female students have used steroids by the time they are seniors.

• About three times as many male teens use steroids compared with female teen users.

• More than half the teens who use steroids started before age sixteen. Some users start as young as age ten.

• In a 1992 investigation by *U.S. News and World Report*, 57 percent of teen steroid users said they were influenced to use the drugs by reading muscle magazines. And 42 percent decided to use steroids because they thought famous athletes were taking them.
Cheaters

"Our society continues to greatly reward 'winning at all costs.'" said Dr. Charles Yesalis. Dr. Yesalis is a steroid expert at Pennsylvania State University. Americans emphasize physical appearance over other traits. These negative messages constantly bombard our young people.

The wrong messages are too often being sent that it's OK to cheat to gain a sports advantage and that using chemicals to [change] your body to play sports or to look good is OK.

Steve Courson, a former member of the Pittsburgh Steelers football team agrees.

"The root of steroid use is society's addiction to bigger, faster, stronger. The win-at-all-costs mentality [way of thinking] leads to cheating and unethical behavior. I regret few things, but I do regret selling myself out by using drugs to compete".
Courson said that he was introduced to steroids at age eighteen by a college trainer. He used the drugs throughout his college and professional football career. Due to the steroids, he developed serious heart problems.

**Courson commented,**

"In the NFL [National Football League], I was nothing more than a highly paid, highly manipulated gladiator [fighter]. I want kids to know they can be greater than gladiators, that they can use a sport to learn lessons about life and not let the sport use them."

The bottom line: People who use steroids are cheating. Using steroids gives athletes an unfair advantage in sports. Ben Johnson (and the public) will never know whether he won because of his steroid use. Without steroids, he may not have sprinted so fast. People who use steroids to develop their bodies are taking a shortcut. "But really there is no shortcut," according to Arnold Schwarzenegger. He is both an actor and the head of President Clinton's Council on Physical Fitness and Sports."

**Booming Black Market:**

Users often get steroids through illegal and costly means. The heavy demand for steroids has created a black, or illegal, market. Illegal steroid sales top more than $500 million each year.

Some adults who work out in gyms or health clubs or go to various competitions sell the drugs to teens. Sometimes a gym owner sells them. Some doctors and veterinarians write steroid prescriptions
for unethical coaches who want teen athletes to bulk up fast. Prescription medications must be bought and used with a doctor's written instructions. However, mail-order sources sell dozens of different steroids. These businesses can send steroids to cities or towns across the United States-without a prescription.

**Teens sometimes sell steroids to other teens.**

According to a 1992 *U.S. News and World Report* article, 25 percent of teens who use steroids say they also sell steroids. In Virginia, one senior high schooler said that he and a friend stole steroids from a drugstore where they both worked. They then sold the stolen drugs at school and made "a killing. Everyone knows you just go to this one guy's locker, and he'll fix you up."

"The challenge of getting hold of the stuff is half the fun," admitted a teen from Iowa. The seventeen-year-old said that he met dealers in parking lots and would taste test the drugs to see whether they were real. What many teens do not know is that from one-third to one-half of the illegal steroids teens buy are fake.
Most black-market steroids are made outside the United States. There is always a chance that they may be fake. Or they may be mixed with other drugs or substances. For example, one teen in Chicago spent thousands of dollars for what he thought were liquid steroids. What he actually got was a mixture of salt and water. Sometimes penicillin, an antibiotic, or veterinary drugs are falsely sold as steroids.

The Law:

Both federal and state governments have laws to control anabolic steroids abuse. In 1988, Congress passed the Anti-Drug Abuse Act. This law made distributing and possessing anabolic steroids for nonmedical reasons a federal crime.

<table>
<thead>
<tr>
<th>Illegal Act</th>
<th>Penalty</th>
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<tbody>
<tr>
<td>First time someone is caught making or distributing steroids</td>
<td>5 years in prison, $15,000 fine, 2 years mandatory probation</td>
</tr>
<tr>
<td>Second time someone is caught making or distributing steroids</td>
<td>10 years in prison, $30,000 fine, 2 years mandatory probation</td>
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In 1990, Congress toughened the laws. Under the Anabolic Steroid Act of 1990, the Drug Enforcement Administration (DEA) regulates, or controls, anabolic steroids. It is a federal crime to non-
medically make, possess, or sell anabolic steroids. If caught, an offender can get up to ten years in prison. This is true in all states and in the District of Columbia.

**Look for Signs:**

Unless you know what to look for, steroid use IS sometimes hard to spot. Here are some warning signs:

- Acne or large pimples on face or back
- More intense workouts; interested only in winning
- Problems with law enforcement officials
- Puffy face and body
- Quick weight gain in short periods of time
- Water retention
- Sleeping problems
- Sudden increase in appetite
- Sudden mood swings
- Violent behavior

Steroid abusers also often use jargon or language that is common among other steroid users.
Violence and Crime:

People on steroids can have wide mood swings. They may feel happy one minute, then suddenly feel angry and bad-tempered the next. Some people become impulsive and exhibit dangerous behavior. Others get depressed and even think about suicide.

Both males and females can become much more aggressive on steroids. This is called roid rage. These bursts of anger can result in violence. No one can predict who will experience roid rage. But roid
rage sometimes ends in violence against other people. Acts of violence can lead to arrest and jail time.

Darren, an ex-steroid user from Pasadena, California, said he was an "easygoing guy." Then, at age sixteen, he started to use steroids and changed. He remembers, "I was doing everything from being obnoxious to getting out of the car and provoking [starting] fights at intersections. I couldn't handle any kind of stress. I'd just blow!

"Joe" (not his real name) used steroids and experienced roid rage. "Your whole mentality changes. You go from an intelligent, normal guy to someone who resorts to beating people up if they don't agree with you. It's a totally physical mentality and very aggressive.

The aggressive behavior that comes as a result of steroid use is known as roid rage. Such bursts of rage can sometimes cause violent and dangerous acts of crime where police intervention is necessary.
In Sharpes, Florida, a mother once again called the police about her son Eric. Then twenty-one, Eric had first started using steroids while in high school. Over the next three years, he was arrested ten times due to his aggressive behavior while on steroids. This time, jail officials put Eric into solitary confinement. That means he was locked in a small cell by himself and could not talk to or see anyone. While in the cell, Eric hanged himself and died. Unfortunately, Eric’s violent behavior (a direct result of roid rage) caused other problems for him. No one will ever know exactly why Eric hanged himself. But steroids certainly did not help.

3- Real-Life Stories:

During the summer before his senior year in high school, Mike trained hard to be a football star. But the Illinois teen wanted to perform even better. So he started taking steroid pills. Why? "I was playing football and looking for a scholarship. I figured steroids would give me a better chance."

Mike's weight flew up from 147 pounds to 176. However, he never saw his skill as a running back improve much. He stopped using steroids.

Sometime later, he tried again. This time, he injected the steroids. He remembered, "I was petrified at first, because I hate needles. But it didn't hurt at all. Again, Mike gained weight and some strength. In the end, though, he lost out on his dream. Because of the extra weight, his tendons loosened in his left shoulder. His shoulder would pop out in
every game. He ended up wearing a brace and having operations to repair the damage. His shoulder is now ruined.

**Negative Effects Ignored**

One teen explained his steroid use this way: "I get side effects [unwanted effects from taking drugs] but I don't mind; it lets me know the stuff is working."

**Selling Steroids Is Illegal:**

In March 1992, a star high school wrestler in New Jersey was caught selling steroids. He was fined. The local newspaper wrote that this was one of "hundreds, perhaps thousands, of cases of steroid use," in central New Jersey schools.

**Wasted Time:**

In a Chicago suburb, Dave planned to go to Daytona Beach, Florida, during his spring break. The high school senior was a weight lifter. He already had a lot of muscle, but he wanted to look better. "I had a friend who was doing Anadrol [a common steroid] that he sold me really cheap," remembered Dave.

He started taking the drug and saw fast results. "My arms were so solid it was unbelievable. I mean they were ·like bricks." He put on weight and his strength also increased. Dave had a good time during spring break. The week afterward was much different.

Dave explained, "I cut off the 'roids [steroids] a week early, because I didn't want them in my system when I was drinking [in Florida]. But it didn't work. Flying home on the plane, I was so sick I thought I was going to die." Not only was Dave sick, his body changed.
After he stopped using steroids, his weight and strength gains disappeared. He said, "I ended up smaller and weaker than I was before. It was a waste of time."

**Teen Takes Own Life**

An eighteen-year-old decided to increase his size and strength, so he bought and used anabolic steroids illegally. The young man's father told his son several times to stop using them. However, neither father nor son knew about the changes that steroids can cause. Depression is fairly common once a teen stops using the drugs.

Finally, the young man listened to his father, and stopped using the steroids. But he soon became extremely depressed. One month later, he killed himself. He didn’t leave a note, so no one will ever know exactly what drove this young man to such a drastic act. But the depression brought on by steroid withdrawal certainly did not help.

**Justly Rewarded?**

Brian Bosworth, a former professional football player with the Seattle Seahawks, tested positive for steroid use during his days as a linebacker for the University of Oklahoma. Nonetheless, Bosworth's contract with the Seahawks for ten years, $11 million, was the largest National Football League rookie contract at that time (1987). Bosworth played only twenty-five games for the Seattle Seahawks before a shoulder injury forced him to retire from football. He has since stopped using steroids and hopes for a successful Hollywood movie career.
Hogan's Phony Muscles:

Professional wrestler Hulk Hogan stands six feet six inches tall and weighs just under three hundred pounds. Every year, he earns millions of dollars for doing commercials and movies. He has also won the World Wrestling Federation championship several times. Since the late 1970s, the superstar has said that he does not use steroids. "I am not a steroid abuser. It's like putting poison in your body," he said on a TV talk show in 1991. He did admit that he had used steroids for a short time in 1983. But he said that a doctor had prescribed the drugs for torn biceps.

These amateur wrestlers are simply enjoying the sport and the natural strength and agility it requires. Unfortunately, some professional athletes seek a competitive edge by using steroids.
Then in July 1994, Hogan had to go to court. He had to testify in a steroid case against Vincent McMahon, owner of the World Wrestling Foundation. That is when he confessed that he had used steroids to "get big." He also said that McMahon helped make the steroids available.

"I would go by the office and pick up the steroids along with my paycheck and fan mail," Hogan explained.

During the case against McMahon, Hogan said about 80 percent—that is, four of every five—wrestlers that he knew in the 1980s used steroids.

**Risk Taker:**

After "Tom" (not his real name) broke his leg, he began weight training to keep fit. His body firmed up and his muscles got bigger. But, he said, "I wanted more size, faster. A training partner suggested steroids. So, for a summer, Tom used steroids. He took steroid pills and also injected the drug into the muscles of his buttocks. Back in school in September, he was surprised. "I got a huge response, from guys and girls. I was sort of shocked at first, but after a while, I began to like it."

When Tom stopped using steroids, he quickly lost weight. He bought more steroids and began using them again. He explained, "You might be able to dodge the physical side-effects for a long time if you know what you're doing. But you can't avoid what steroids do to your head. (Roid rage is an all-too-common side effect.)
Parent Pushers:

Sometimes parents push their teens into taking steroids. Philip Halpern, a San Diego lawyer, said, "I've uncovered numerous examples of fathers getting steroids for their kids because they wanted them to be better athletes."

One tenth grader hoped to play professional football in the future. "My stepdad says he's going to start me up on steroids as soon as I'm done growing," said the teen.

Pushing at the Gym:

Greg started working out in a local gym. That is where he bought his first steroids. At first, the drugs worked for him. In a little less than twenty-two months, he went from 183 pounds to 242 pounds. He developed lots of muscle. Pleased with the result, he used steroids for thirteen years. Then, he began selling steroids to teens. Over the years, he estimated that he had sold steroids to more than one hundred teens. He remembered, "I had this one kid, fifteen years old-I made a monster out of him. I took him from 150 pounds to 236 in a year, and he was out of control, fighting, stealing."
As a result of his own steroid use, Greg developed high blood pressure and swollen lymph nodes. (Lymph nodes contain large cells that absorb harmful matter and dead tissue. They are bunched together in the neck, armpits, groin, and near other organs and large blood vessels.) Greg also grew to feel guilty about what he had done to the young people he had sold steroids to.

He turned his life around and now talks to young people in schools about the dangers of steroids.

4- **Dangers of steroids**

European researchers first developed steroids in the 1930s. Their goal was to help people rebuild body tissue that had broken down from disease. After World War II ended in 1945, steroids had a new use.
They were given to the many starving people found in concentration camps. These drugs helped the skeletal prisoners build up their body weight.

Use of steroids in sports began in the early 1950s. During the Olympic Games, the athletic community discovered that some Soviet and Eastern European athletes had taken large amounts of steroids. As a result, they had big muscles and great strength. When this news traveled around the world, athletes in other countries began to use steroids.

Steroids can cause many dangerous side effects. They also give an unfair advantage to the athletes who use them. That unfair advantage is why steroids have been outlawed in the Olympics since 1975. Most amateur and professional sports organizations also ban and test for steroids regularly.

**Steroids Defined:**

Anabolic steroids are compounds that resemble testosterone, the male sex hormone. They are synthetic, which means they are made in laboratories. Hundreds of different steroids have been synthesized. Each one has different effects. Some steroids are used to treat illness or injury. Other forms of steroids build strength and muscles.

Although testosterone is called a male hormone, it is found in both males and females. But males produce much more testosterone than females.
The adult male, on the average, naturally makes from 2.5 to 11 milligrams (mg) of testosterone each day. In contrast, the average steroid user takes more than 100 mg a day.

Anabolic steroids can be taken in tablet or liquid form. The liquid form is injected into muscle. Most injected anabolic steroids are stored in the body’s fat. They remain there for several weeks. As long as they are in the body, they can cause health problems.
**Medical Uses:**

Some steroids are helpful medical drugs—when taken properly under the supervision of a doctor. The corticosteroid called cortisone is an example of a useful steroid. Cortisone is used to treat a range of health problems, from tendon injuries to vision problems.

Doctors must use steroids carefully and in small amounts because steroids can produce many side effects. It is the nonmedical, illegal use of steroids that is of concern. The amount taken illegally by an adult or teen is often fifty to one hundred times the amount used by doctors to treat diseases. Such excess can cause many health problems. Sometimes, taking too much steroid can cause death, as happened to one young man. Complaining of severe pain, a twenty-three-year-old bodybuilder was taken to the hospital. Doctors found that his liver and kidneys had stopped working. He was rushed to the intensive-care unit. But four days later, his heart stopped and he died. When doctors examined his body again, they discovered high levels of steroids.

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**Certain Steroids Can Help Treat:**

- Allergic skin rashes.
- Androgen-deficiency disease. Men with this disease cannot make enough of their own testosterone.
- Blood diseases such as anemia and kidney failure. (Anemia occurs when the body does not produce enough red blood cells.)
- Lack of muscle production. Sometimes people with certain forms of cancer, burns, and AIDS can be helped with steroids.
- Osteoporosis, or thinning of the bones.
- Some breast cancers.
Do Steroids Work?

Anabolic steroids mimic the bodybuilding effects of testosterone. So anabolic steroids do cause muscles to grow: Athletes who have used these drugs report an increase in muscle mass, strength, and endurance. People gain weight on steroids. Often, though, the weight gain is a result of water retention.

These changes are not permanent. People who take steroids illegally often megadose. They take huge amounts each day. Most cycle their steroid use. They take the drug for several days, stop taking it for several days, then continue this on-off cycle. Others take steroids for six to twelve weeks or more, stop for several weeks, then start another megadose cycle. During the time people are off steroids, they lose weight and strength.

Richard L. Sandlin is a former assistant coach with the University of Alabama. He said,

``I took steroids from 1976 to 1983. In the middle of 1979, my body began turning a yellowish color. I was very aggressive and combative, had high blood pressure and testicular atrophy [shrinking of the testes]. I was hospitalized twice with near kidney failure, liver tumors, and severe personality disorders [changes]. During my second hospital stay, the doctors found I had become sterile. Two years after I quit using and started training without drugs, I set six new world records in power lifting, something I thought was impossible without the steroids.``
The Dangers:

Some of steroids’ effects, such as rapid weight gain and muscle mass, are easy to see. Some changes take place inside the body and may not be seen until it is too late. Some effects are not reversible. Here is a rundown of the dangers of steroids.

One former bodybuilder remembered this about what steroids did to a friend:

“This woman friend of mine walked into the gym after being gone for three weeks. Her face was square and had unusual amounts of blond hair all over it. Her voice was really deep and her back had acne on it which she never had before. She went from beauty to freak in three weeks.”

His friend had been injecting large doses of steroids. Continued use of steroids can cause many health problems in both men and women.

Aaron began using steroids when he was a teen. He was a bodybuilder and worked out regularly. He wanted to be bigger and stronger. "In basically three to six months I went from being able to bench press 250 pounds once, and it was difficult doing it once, to doing 12 reps (repetitions) with 300 pounds easily." But he developed serious liver problems from using steroids. He nearly died.
Aaron now says that steroids are too risky. "I'm here to tell people and especially young people that yes, it can happen, and yes, it will happen to you."
Benji was not as lucky as Aaron. Benji was a seventeen-year-old high school senior who played football for Ashtabula High School in Ohio. During practice on Halloween, he collapsed. He died in a nearby hospital. What killed him? Steroids, said the doctors. They found that his heart was diseased, his testicles had shrunk, and he had puncture wounds on his thighs. Friends said that Benji wanted to be "big" and that the teen believed that "steroids were not harming him or that taking them was worth the risk."

**Other Dangers:**

There are other serious dangers associated with using steroids. Most people who begin using steroids take them as pills. Some then decide to use syringes and needles to inject the steroids. Many brands of steroids must be injected with huge syringes and large, 1.5-inch needles. "The first time I tried to inject myself, I almost fainted, and one of my friends did faint," said one nineteen-year-old from Arizona. "Sometimes one of the guys will inject in one side of his butt one day and the other the next. Then, we all laugh at him because he can barely sit down for the next three days."
One weight lifter said, "We all knew who was using. We exchanged information on any new drugs that were on the market. We got our steroids through the gym owner. In fact, he would inject them for us, in the rear."

If needles are shared, steroid users can get dangerous infections, such as hepatitis or the HIV infection.

Also, because most people buy steroids illegally, they really do not know exactly what they are buying. A user could be taking drugs other than steroids and not know it.
Teen Alert:

If children or teens use steroids, it can prevent their bones from growing properly. That means they will not grow to their full height. Even small doses of steroids can affect height permanently. That is why doctors seldom prescribe anabolic steroids for children or teens.

Anabolic steroids also make the tendons weak. Tendons connect muscles to bones. Weakened tendons cannot carry the extra weight that users put on and can tear or break down.

Personality Changes:

People taking steroids can find that the drugs cause unpredictable mood and personality changes. The user may become angry or hostile over small things. Users can also fly into sudden rages.

Steroid's Hook:

People on steroids can grow addicted to them. When this happens, steroid users crave or strongly desire the drug and have a hard time stopping its use. They cannot control their use of steroids and become dependent on them.
When users who are dependent on steroids stop using them, they go through withdrawal. Withdrawal is the process of ridding the body of a drug. Withdrawal can produce many symptoms. Many former steroid users tell of suicide attempts.

"I tend to get really depressed when I go off a cycle," said a Maryland teen. "On a bad day, I think 'Gee, if I were on the stuff this wouldn't be happening."

**Lyle Alzado's Story:**

Although Lyle Alzada was fast, he was not big enough for professional football. So, in 1969, while in college, he began taking steroids. He found them easy to get. By using steroids, eating a lot, and working out, he soon went from 190 pounds to about 300 pounds. Two years later, he played defensive end with the Denver Broncos. Alzada kept taking steroids. He said:

"I kept on because I knew I had to keep getting more size. I became very violent on the field. Off it, too. I did things only crazy people do. Once in 1979 in Denver a guy sideswiped my car, and I chased him up..."
and down hills through the neighborhoods. I did that a lot. I'd chase a guy, pull him out of his car, and beat ... him.’’

Later, Alzado played with the Cleveland Browns and Los Angeles Raiders. Twice during his career he made All-Pro. No matter which professional football team he joined, he continued to take steroids. He also helped other football players get steroids if he was asked.

Alzado admitted, "I was so wild about winning. It’s all I cared about, winning, winning, winning .... I felt I had to keep up. I didn't sleep much, maybe three or four hours a night. My system would run so fast.” 13

He explained why he could not stop. "It was addicting, mentally addicting, I just didn't feel strong unless I was taking something.”

Alzado knew the drugs were not good for him. His cholesterol level skyrocketed to more than four hundred. (Anything higher than 250 is considered a potential problem.) From injecting so many steroids into his buttocks, he had to have lumps of hard tissue removed. Some of the lumps were larger than baseballs. He remembered, "I got moodier and moodier, too. I had a couple of divorces. I yelled all the time. Anytime I'd walk into a restaurant or bar, I always felt like I had to check everything out to make sure no one was going to mess with me.

Withdrawal Symptoms

- Depression
- Headache
- Inability to sleep
- Loss of energy and appetite
- Muscle shrinkage
- Nausea
- Sweating
- Weight loss
Even after Alzado retired from the NFL in 1985, he kept taking steroids. "I couldn't stand the thought of being weak. I tried to taper down." 16 He also tried a comeback with the Raiders in 1990, but he hurt his knee. After knee surgery, he was cut from the team. Soon after, he fainted. When he came to, blood was pouring down his face. He had broken his nose and needed surgery.

After four days in the hospital, Alzado went home. But he noticed he would feel dizzy sometimes. He had trouble with his balance and coordination. He tilted to the right when he walked. When he started seeing double and slurring his speech, he went back into the hospital. There he was told he had incurable brain cancer.

Alzado believed that his use of steroids caused his cancer. One of the doctors who treated him agreed. In fact, the doctor kept warning Alzado to stop taking steroids. After his cancer was found, Alzado said, “If I had known that I would be this sick now, I would have tried to make it in football on my own-naturally. Whoever is doing this stuff, if you stay on it too long or maybe if you get on it at all, you're going to get something bad from it. I don't mean you'll definitely get brain cancer, but you'll get something. It is a wrong thing to do.”

Alzado told his story to Sports Illustrated magazine in July 1991. One year later, he was dead. His final words in the Sports Illustrated article were "My strength isn't my strength anymore. My strength is my heart. If you're on steroids or human growth hormone [a steroid substitute], stop. I should have."
5- Fighting steroid Abuse

Two important factors in combating steroid abuse are awareness and education. Federal drug programs, schools, communities, and individuals provide information, education, and help in dealing with steroids.

Orange County Colleges:

Several colleges in Orange County, California, have developed programs on steroid abuse. Some of their material focuses on the negative effects of steroid use. The colleges also have written policies to explain why athletes should not use anabolic steroids. The policies tell student athletes that these colleges accept only fair sports events. Using steroids is cheating. Athletes can be tested for steroids at any time. If they are found to be users, colleges will get them treatment help.

ATLAS Program:

One drug program called ATLAS (Adolescents Training and Learning to Avoid Steroids) has proven to be a success. ATLAS was created by scientists at the Oregon Health Sciences University. This prevention and education program teaches teens about anabolic
steroids and how to avoid taking them. The study ran for one year in thirty-one schools in Portland, Oregon. A total of 1,506 football players and students went through ATLAS during the football season.

The program is team-based. Coaches and student team leaders give seven weekly, fifty-minute classes on a variety of topics: effects of steroids, sports nutrition, strength training, drug refusal, and anti-steroid media messages. In addition, seven weight-room sessions are taught by Oregon Health Sciences University research staff. Parents are given information on ATLAS and are invited to a discussion meeting.

"ATLAS is a very unique approach to dealing with the problem of steroid use among athletes," said Dr. Linn Goldberg, head of the ATLAS program. "It involves a team-approach that empowers student athletes to make the right choices through education. And we now know it works."

Minnesota State High School League

The state of Minnesota ran an eight-to-ten-week training program for students, coaches, and trainers. An important part of the program was drug education. Steroids were covered because it is "really a serious issue," said Dorothy E. McIntyre, associate executive director of the Minnesota State High School League." This organization produced a video on steroids that was used in schools around the state.
Federal Government:

Three federal agencies-National Clearinghouse for Alcohol and Drug Abuse Information, United States Department of Education, and National Institute of Drug Abuse-publish a variety of information on steroids. Their booklets, pamphlets, and books are available by mail or through their sites on the World Wide Web.

Communities

Various national groups and local communities are working to combat steroid use.

Medical Organizations:

The American Medical Association (AMA) condemns or strongly disapproves the use of steroids by athletes. Other medical associations agree with the AMA, including the American Academy of Pediatrics, American College of Sports Medicine, American Academy of Orthopedic Surgeons, and American Osteopathic Academy of Sports Medicine. Several of these organizations have put together brochures on the dangers of steroids.

TARGET Program:

The National Federation of State High School Associations is headquartered in Kansas City, Missouri. It supports after-school athletic, music, speech, and debate programs in more than twenty thousand high schools in the United States and Canada. It’s TARGET Program provides information about drugs, including steroids. Much of the program is aimed at coaches of teen athletes. TARGET explains to
coaches the warning signs of steroid use and what to do if someone may be on steroids. It also recommends a plan to keep steroids away from athletes and schools.

**National Steroid Research Center (NSRC):**

John L. Lestini, Jr., is a big fan of the Pittsburgh Steelers. Lestini came to know former Steeler football player Steve Courson. Courson had used steroids during college and in his early football career. Now he had serious heart problems from the steroids. To warn others about the dangers of steroids, Courson gave talks to adults and teens. Lestini began to go with Courson. "I gained enormous knowledge on steroids by just sitting back and listening to Steve talk to groups around the country," Lestini said.

Then in 1989, Lestini founded the National Steroid Research Center and Other Drugs of Abuse in Sports. "This all came about when Mike Webster and a couple other former Steeler players approached me about helping one of their teammates who had used steroids and was very ill," remembered Lestini.4 The National Steroid Research Center is in downtown Weirton, West Virginia. John L. Lestini, Jr., is the chair and director.

So far, the NSRC has accomplished the following:

- Its staff members have spoken on television and radio talk shows, at colleges, at public schools, and at hospitals, as well as with the police throughout the United States.
- It helped with the passage of the Anabolic Steroid Act of 1990. (This law makes selling steroids a federal crime. Selling steroids
can carry up to a five-year prison sentence and large fines. Simply using steroids could bring the user large fines and time in prison as well.)

- It offers a variety of materials and referrals on steroids to kids, teens, teachers, coaches, professional groups, health professionals, and law enforcement personnel.

- It runs an 800-number telephone steroid hot line. NSRC gets calls from around the United States. A typical one: "My son is becoming so aggressive. He's gained thirty to fifty pounds in the last four months. He's losing concern for everything except athletic training."

"Steroid abuse is a family problem," Lestini said. "The emotional changes affect every member of the family involved."

A strong family like this one can help if a family member has a problem to overcome.
**Individuals:**

Just one person can make a big difference in the fight against illegal steroid use.

*Greg Kostas:*

While working out at a local gym, Greg Kostas started using steroids. As time went on, he sold steroids to teens at the same gym. He did this for thirteen years. Today, Kostas still works out. But he stopped taking steroids years ago. From all his steroid use, he developed serious health problems such as high blood pressure and swollen lymph nodes. And he felt guilty about turning teens on to steroids. "I did wrong for thirteen years, and it was time to set it right." He now talks to teens at the same local gym about the hazards of steroids.

*Brian Isetts*

Brian Isetts, a pharmacist, has talked to thousands of teens about the dangers of steroids. Isetts is an instructor in the Pharmaceutical Care Laboratory at the University of Minnesota, College of Pharmacy. He is also director of professional affairs for the Minnesota Pharmacists Association. He estimates that from 3 to 4 percent of all high-school-age male teens have used steroids. He has also noted that "often teens on steroids also have a problem with alcohol.

Isetts is part of a network of pharmacists that focuses on steroid education in schools. About fifteen to twenty other pharmacists participate in this nationwide program. Isetts begins his discussion by talking about the current attitude that;
"Winning is everything in America. There are a lot of pressures on young people today. I think we've lost sight of what sports is all about. Nowadays, its high stake games with lots of money."

He goes over the effects of steroids. "Guys are uncomfortable when they hear that their testicles can shrink or their breasts can grow: Steroids jeopardize their health. My goal is to give accurate information so they can make informed choices."

Isetts sometimes brings in guest speakers-former steroid users who have ruined their health by taking steroids. Isetts encourages teens to ask questions and share their concerns.

1- What you can do

Peer pressure and winning are reasons that teens give for using steroids. Teens want to be liked and accepted by others. But only they can decide what to put into their bodies-and they can encourage others to stay away from steroids and other drugs.

Saying No to Steroids:

It is not always easy to say no. Saying no to steroids and other drugs takes courage. However, by refusing to use steroids or take drugs, teens show they value themselves. They are also saying that they are responsible for what they do and decide not to do.

Quitting
If you or someone you know wants to quit using steroids or other drugs, call or write

- AIateen, a organization of AI-Anon. AIateen is for teen friends and family members of drug abusers. It has chapters in cities across the United States.
- Drug treatment programs or chemical dependency programs
  - Family or friends
  - Hot lines and referral services
  - Mental health agencies
  - Organizations in your area. (Look in the telephone book's yellow pages under "Community Services" or "Drug Abuse.")

Teachers, school counselors, drug abuse counselors, your physician, or other health professionals

Tell Others About Steroid Abuse

To help get information out about the dangers of steroid abuse, here are some steps to take:

- Ask local businesses, such as the gas or telephone company, to include bill stuffers about the dangers of steroid abuse.
- Create fact sheets about steroid abuse. Include telephone numbers of places that people can call for help or for more information. Ask local supermarkets if they will stuff your fact sheet in customers' bags.
- Create posters that warn about steroid abuse. Include telephone numbers of organizations people can call for help or for more
information. Ask the owners or managers of places that kids and teens often go to if you can put up your posters. Try recreation centers, music stores, fast-food restaurants, pizza places, ice-cream parlors, candy stores, movie theaters, supermarkets, and youth centers.

- Write a letter about steroid abuse to the editor of your community and local newspapers.

**Enjoy Drug-Free Fun**

Looking good and feeling good are great reasons to avoid using steroids and other drugs. Millions of kids and teens across the United States stay free of steroids and other harmful substances. They know that using drugs does not solve problems or add anything to their lives.

There are lots of ways to enjoy life. For example, learning a new skill can be fun. Taking lessons will help build skill and confidence. Debate, karate lessons, skating, rollerblading, water or snow skiing, skateboarding, or trying out for a play are all good alternatives to drug use. Sports such as tennis, volleyball, soccer, basketball, baseball, hockey, and track also provide fun, healthy outlets.

Volunteering is also rewarding and fun. Volunteer work is often available at hospitals, day care centers, food banks, nature centers, or nursing homes. Volunteers also teach people to read or read for people who have trouble seeing.

Putting together a neighborhood newspaper is a great way to keep your neighbors current on what is happening. Sophia Williard, age nine, of Mount Lebanon, Pennsylvania, had a lemonade stand at the end of her driveway. She got to know a lot of the neighbors this way.
But, "I got bored with that, but I still wanted to make money and help people get to know one another."

So, in 1996, she started a neighborhood paper. A year later, she had forty paying subscribers. She puts out six issues a year. Her papers include local news, sports, comics, poetry, trivia, surveys, and ads.

Michael Attardo, Jr., age eleven, explained his moneymaking idea. "I had this idea where kids can bring in their stuff and sell it and probably makes some money:" Michael's idea became Kid Biz. It is an outdoor marketplace in Buffalo, New York, run by young people, between the ages of seven and eleven. In the first year, more than forty young people completed a training class. They then each paid two dollars to rent a booth in a local park for one Saturday each month. Every Saturday, each young person made between ten and seventy dollars. They sold snow cones, cotton candy, painted rocks, jewelry, designer pencils, used books, toys, and lemonade.

Peer support groups at schools can help kids discuss and deal with daily life issues and decisions. They also offer fun activities and sometimes increase cultural awareness. After-school programs or groups such as Boys and Girls Clubs of America, Boy Scouts, and Girl Scouts may offer programs like this. Belonging to groups like these is a great way to meet new friends and do exciting activities.

Peer leadership programs and peer counseling interventions at your school or community center are another way to meet and help people. These programs help young people learn how to speak before an audience, organize tasks, talk with peers and adults, and run group meetings. Peer leaders sometimes speak at conferences and meetings or
co-lead drug-prevention activities. Peer-counseling interventions involve young people who help their peers through one-on-one sessions, informal street talks, or answering a telephone hot line.

The Keys:

It takes hard work and time to develop and train the body. And it takes much more than muscles or strength to be a star athlete. Athletic ability depends on strength, endurance, skill, and mental keenness. It also depends on diet, rest, natural ability, and overall mental and physical health. Athletic excellence is achieved by millions without using dangerous steroids and other drugs.
Training:

Coaches help athletes train for particular sports. Finding the right balance for training is essential. Overtraining can lead to fatigue and injuries. Coaches know that a mix of aerobic exercise, strength training, exercise drills, and rest is best.

They also can help with mental conditioning. Many coaches use four methods: positive imagery, goal setting, relaxation training, and assertiveness training.

Positive Imagery. This method combines deep breathing and visualizing an upcoming athletic event. In your mind, you "see" yourself crossing the finish line or shooting a successful free throw.

Goal Setting. First, goals are identified, then the steps needed to reach those goals are laid out. The athlete goes through the steps, one at a time, getting closer and closer to the goals. When a goal is achieved, a new one is set.

Relaxation Training. This method teaches muscle relaxation and helps concentration.

Assertiveness Training. This method deals with controlling anger, thinking positively, and coping with disapproval and fear.

Mel’s Story:

Mel took swimming lessons at age three at the local YMCA. As he got older, he won many swimming races. “I didn't grow at all between age twelve and thirteen, at a time when some of my competitors grew five inches. I didn't win for a year while I waited for that growth spurt-and it was pretty hard to swallow: But
Fortunately, I had great parents and a great coach who told me that swimming was about improvement, not about winning. Being talented is only part of the equation for an athlete. You need determination, you need a good coach, you need your family behind you, you need your own feelings of self-worth and security—and then some luck, too. And I had all the ingredients.

Mel continued to swim. He also studied hard and was an honor student. The talented athlete went to his first Olympics in 1988. But he did not win a medal. He remembered, "I was so in awe, and so gripped by fear. The fear paralyzed me."

He still believed in himself. He did not turn to steroids or other drugs. Instead, he set new goals for himself. "I said that I would make 'baby step' improvements every day, and that in four years I would go into the next [Olympic] Games. Mel kept his promise to himself. At the 1992 Olympic Summer Games at Barcelona, Spain, he put all his physical and mental training to work. The results: He won two gold medals."
swimming medals and set a new world record in the 200-meter butterfly.

The swimming champion told teens, "If it's a challenge, race toward it, don't shy away. You can't have any other attitude toward life."
Questions for discussions:

1. It is often hard for someone with a steroid problem to get help. Why do you think this is true?

2. If you think that one of your friends has used steroids, what would you do?

3. What would you do if you found out that a friend was selling steroids?

4. How many kids do you know who have used or are using steroids? How do you feel about their steroid use?

5. If someone wants you to try steroids, what are some refusals you would feel comfortable using? Have you practiced saying them?

6. Has anyone approached you about using steroids? If yes, how did you handle it? Now that you have read this book, would you have done or said something different?

7. If someone sells steroids to teens, should that person receive a tougher penalty than someone who sells to adults?

8. What do you like to do to get a natural high? Many kids like to swim. Some like to play basketball, baseball, soccer, or tennis. Some like to skate, write, draw; or paint.

9. In what other ways could your community educate people about steroids?

10. Do you think all schools should have drug information programs for their athletes? Explain your answer.
Glossary

Acquired immunity deficiency syndrome (AIDS): A deadly disorder of the immune system. It lowers the body's ability to fight off infectious bacteria and viruses. The cause of AIDS is unknown.
Addict: A person who is dependent on a substance. anabolic steroids--Synthetic steroids that increase muscle size and strength.
Black market: An illegal market, or the illegal selling and buying of products or services.
Blending: Mixing different drugs.
Buffed: Having large muscles.
Bulking up: Increasing muscle mass through steroids.
Carbohydrates: A class of food that includes sugars and starches. Carbohydrates are the main source of energy for animals.
Chemotherapy: A series of drug treatments used to destroy cancer cells.
Corticosteroids: Synthetic steroids used to treat some health problems.
Cycle: The eight-to-twelve-week period when steroids are used. After that, the user lets his or her body rest for the same period.
Doping: A slang term for using steroids to improve athletic performance.
Hormones: Naturally produced chemical substances that regulate functions in the body such as growth, sexual development, and reproduction.
Human immunodeficiency virus (HIV): The virus that is believed by many researchers to be the cause of AIDS.
Injection: The use of a needle to force a liquid into the body.
Juiced: A slang term that describes someone who is taking steroids.
Mega dosing--Taking large amounts of steroids. plateau-The point at which a steroid no longer works the way it once did.
Prescription-Medication that is bought and sold with a doctor's written instructions.
Roid rage-A slang term for uncontrolled anger, frustration, or combativeness that results from using anabolic steroids.
Roider-A slang term for a steroid user who takes the drug only for appearance. Other terms for roider are juicer and joy rider.
Shotgunning-A slang term for taking steroids irregularly. stacking-A slang term for taking several different steroids at the same time.
Sterile-Unable to reproduce.
**Steroids**—Chemical substances that regulate functions in the body such as growth. Hormones are one type of steroid.

**Synthetic**—Made from chemicals in a laboratory. tapering—Slowly decreasing the use of steroids. tendons—Tissues that attach muscles to bones. testosterone—A hormone that causes a boy’s body to develop.

**Withdrawal**—The process of ridding the body of a drug.
Further reading


Internet Addresses:
Anabolic Steroids
<http://www.drugfriemeamerica.org/steroids.html>
Appendix B

"مخاطر عقار الإستيرويد"

ترجمة

محمد شوشو

(2013)
1-قصة جون

بدأ جون ممارسة رياضة بناء الأجسام في سن الخامسة عشر. وما لبث أن أصبح نجم كرة قدم فائزاً بعدة جوائز. عرف بكونه رجل لطيف حنون ومثال يقتدى لطفلية و للعشرات من الشباب في الجمنازيوم حيث كان يتدرّب. فقد كان يأكل أطعمة صحية ولا يدخّن السجائر أو يشرب الكحول. كانت حياته الأسرية قوية وكان لديه الكثير من الأصدقاء فقد أسّس موسى موضع إحترام من قبل العديد من الناس. مرض جون عندما كان في الخامسة والثلاثين مرضًا شديدًا ولكنه وحتى الآن لم يعرف سبب المشكلة. وكان هو نفسه سبب المرض. ماذا فعل؟

عند بلوغه الثلاثين قرر جون محاولة إبقاء جسمه الكبير القوي بعيدًا عن الشيخوخة. أراد إبقاء بنيته العضلية وقوته الهائلة. كان وزنه آنذاك 220 باوند وطوله ستة أقدام وبوصتين.

لم يسع جونlikes لول ثلاث سنوات على الأقل كان جون يستخدم الإستيرويدات البنانية والتي بيعت له ولآخرون بشكل غير نظامي. كان جون مواطناً في الجهاز إلى الجمنازيوم يوميًا. وبعد أن يفتح خزانته ويأخذ عقاقيره وملحقاتها كان يبحث عن مكان خاص لِلحُفَق نفسه بالإستيرويدات البنانية. بعدها يبدأ تدريباته الرياضية ويساعد الرياضيين والرياضيات والمراهقين والمراهقات الآخرين. يذكر بوب أحد أصدقاء جون عندما كان يراه يصرخ عالياً بنفس الشيء دائمًا: "مرحبا بوب متى ستتدعني أريك كيف تضع بعض العضلات على جسمك النحيل هذا؟ " والآن يزور بوب صديقه جون في المستشفى فقد أصبح الأخير مريضاً جداً فقد شُخّص أطباءه أخيراً المشكلة بأنها - سرطان نادر بالكليّة. سرعان ما تحول ذلك الورم إلى سرطان وانتشر إلى رئتيه وأعضائه الأخرى.
أخضع جون للعلاج الكيميائي وهي عبارة عن سلسلة من المعالجات التي
تستخدم مواد كيميائية قوية جداً في محاولة قتل سرطانه. وكانت تلك المواد الكيميائية
القويّة التي استعملت في العلاج الكيميائي قد جعلت جون يُكثر من القيء. فقد تقيّأ كثيراً
وحنجرته كانت متهيجة جداً بحيث كان يبصق دماً.
وفي المستشفى، اهتز بوب لسماعه بمرض جون وكيف أصبحت حالته.

ف قد خسر جون مائة بوند تقريباً.

وقد تساقط كل شعره الأسود الثخين، حتى حاجبه السودان الكثيفان قد اختفيا.

السودوان الكثيفان قد اختفيا. جلده الجاف والمجعد أصبح متدليا تكسوه خضرة رمادية.

سمع بوب صديقه "يلهث طلبا للهواء، صوته الأäch يهمس بشكل غير واضح وبطريقة مختلفة عمّا كان يحيه بها دامآ".

بعد يوم واحد من زيارة بوب مات جون. سبّبت المنتشطات البنائية هذا النوع

النادر لورم الكلية والذي قتل جون في نهاية المطاف.

2- المجتمع والإستيرودات

تعتبر المنتشطات البنائية، عادة ما تسمى بالإستيرودات، من العقاقير القويّة. فهي

شكل من أشكال التيستوستيرون، الهرمون الذكوري الطبيعي. (الهورمونات هي"مراسيل كيميائية" في أجساد الرجال والنساء. فهي تسيطر على نشاطات معينة بالجسم كالنمو والتطوير وإعادة الإنتاج.) وباستخدام الاستيرودات يستطيع الإنسان أن

يبني جسمه قوياً عضلياً بالغًا من الدهون بسرعة. وعلى أي حال فهناك مخاطر صحية

جميلة. لهذا فإن استعمال الاستيرودات بدون إشراف طبي يعد مخالفة للقانون.

إنتشار خطر الاستيرودات:
هزت الصدمة عالم الألعاب الرياضية عندما فقد العداء الكندي بن جونسن ميداليته الذهبية في صيف أولمبيات عام 1988. فقد كسر الرقم القياسي المسجل للجري السريع لمسافة 100 متر. كما هزم البطل الأمريكي كارل لويس من الولايات المتحدة.

بعد نهاية السباق كانت نتيجة فحص المنتشطات إيجابية. فقد استعمل منشطًا يدعى (ستانوزول). وبمجرد إعلان هذا الخبر جُرَّد من ميداليته الذهبية وأعطيت مباشرة إلى كارل لويس. وعوقب النجم الكندي البارز بتعادله من المشاركات الدولية لمدة عامين.

جلب خزي بن جونسن الإنتباه الدولي إلى الاستخدام غير الشرعي للإستيرويدات بين أوساط الرياضيين والرياضيات العالمية. فقد حظرت اللجنة الدولية الأولمبية استعمال المنتشطات رسميا في عام 1975. وعلى الرغم من هذا الحظر ما زال الرياضيون والرياضيات يستعملونها.

وجزلت تلك تباعا وبسرعة جمعيات رياضية أخرى. ففي باديء الأمر كان يُخبر الرياضيون بموعد إجراء الاختبار لهم فيتوجهوا عن أخذ العقاقير بما فيها المنتشطات. فإذا عرف الرياضيون والرياضيات من سيكون موعد الاختبار يتوقفون عن أخذ المنتشطات في الوقت المناسب لخروج العقار من الجسم. وعندما "يظهر" استعمال المنتشطات منخفضا عند الرياضيين والرياضيات.
بعد ذلك ومنذ أنشطة عام 1984 الرياضية الأوليمبية أصبحت اختبارات

المنشطات "مفاجئة" للبعض. والنتائج؟ حولى نصف الرياضيين والرياضيات كانوا من مستخدمي المنشطات. ومع هذا فلم تركز أجهزة الإعلام الإنتباه العالمي إلى سوء استخدام المنشطات حتى عام 1988. فخبر تجريد نجم بارز مثل بن جونسن من ميداليته الذهبية بسبب استعمال المنشطات كان خيراً هاماً.

وفي الوقت الراهن تمنع معظم المنظمات الرئيسية الرياضية للمحترفين والهواة استخدام المنشطات. وعلى الرغم من العديد من المخاطر الصحية لا يزال الرياضيون والرياضيات وغير الرياضيون والرياضيات يواصلون استخدامها.

من يستخدم المنشطات ولمادا؟

تعتبر فئة الرياضيين المحترفين والهواة على أفضل تقدير الفئة الأكبر لمستخدمي المنشطات. فالعديد من المراهقين والمراهقات الرياضيين والرياضيات يحاولون أن يبرعوا في رياضة ما ليتمكنوا من الحصول على منح دراسية. وبعض المراهقين والمراهقات يستخدمون المنشطات لزيادة أوزانهم وقواتهم وكلتهم العضلية.
As others use stimulants to boost their confidence or their physical strength, for example: police officers, firefighters, or builders may use stimulants to make themselves appear larger and stronger than they actually are.

Young people may use stimulants not only to be successful in sports but also to reach a state of "perfection." Many of them use stimulants to help them build muscle mass quickly.

"Tom" (not his real name) is a high school student and a sportsman who uses stimulants. He explained why he and other athletes use these drugs. He said: "Children in television see that good-looking boys get the girls and respect from the boys who want the same.

The gym is always full of men and women who are using stimulants to build and increase their muscle mass.

One of the young people who use stimulants said: "This older man is the biggest man in the gym. . . . He weighs 304 pounds without a single pound of fat. . . . That is our goal."

He goes to the gym whenever he can. And so do other interested in building muscle.

There you can meet with those men and women who use stimulants to build and increase their muscle mass.

"Tom" says: "We always go to the gym and the people there respect us. . . . They say that we are the best in the gym. . . ."
لا يقتصر استعمال المنشطات على أي مجموعة من المراهقين. فالمراهقون والمراهقات يستعملونها سواء كانوا من الأغنياء أو من الطبقة المتوسطة أو من العوائل الفقيرة. ويستخدمها شباب من أعراق مختلفة سواء كانوا يعيشون في المدينة أو في القرية أو في مجتمعات ريفية.

يقول أحد المراهقين والمراهقات المستعملين للإستيرويدات "ولك أن ترى أي شخص في المدارس الثانوية، له كتلة عضلية كبيرة متموجة وضخمة وعضلات ذراع (ثنائية الرؤوس) ذات عروق بارزة، فلك أن تعرف بأنّه مستخدم". يستخدم (العصير) أي يأخذ المنشطات.

يشكل الذكور غالبية المراهقين المستخدمين. وعلى كل حال وشيناً فشيئاً بدأ الإناث باستخدام الإستيرويدات. هدفهم من ذلك هو أن يفقدن الدهون ويسكن العضلات. إن نسبة استخدم الإستيرويدات تعد مرتفعة خصوصاً بين المراهقات البنات اللواتي يمارسن النشاطات الرياضية مثل العاب المضمار والميدان وكرة القدم وكرة السلة وكرة الطائرة وفرق التدريب والرقص بالمدارس.
لا أحد يعرف تماماً كم من المراهقين والمرأفات يستخدم المنشّطات. لآن
استخدام المنشّطات في الألعاب الرياضية غير شرعي ومن الصعب تتابعة الأعداد بدقة.
يخبر أحد مدربين المدارس الثانوية ببوسطن مجموعة من الأطباء بأن أحداً من لاعبيه لم
يستخدم المنشّطات أبداً. وكان أحد لاعبيه يستمع إلى الحوار فنهض المراهق وأخبر
المستمعين المذهوليين بأن سبعة عشر من أصل إثنان وعشرون من أفضل رياضييه هذا
المدرب كانوا من المستخدمين.

المستخدمين للإستيرويدات من الأمريكيين المراهقين والمرأفات (بالأرقام):

• يستخدم أكثر من مليون شخص المنشّطات غير الشرعية نصفهم من
المراهقين والمرأفات.

• يستخدم المنشّطات ما بين 5-12 بالمائة من طلاب الثانوية من الذكور.
وواحد بالمائة من الإناث خلال السنة الأخيرة بالمدرسة.

• يفوق عدد المستخدمين للمنشّطات من الذكور المراهقين والمرأفات
مقارنة مع المستخدمات من المراهقات من النساء بحوالي ثلاث أضعاف.

• أكثر من نصف المراهقين المستخدمين للمنشّطات قد بدأوا بالإستخدام
قبل سن السادسة عشر. وبعض المستخدمين يبدأون بين العاشرة.

ويكشف تحقيق عام 1992 بواسطة "التقرير العالمي للأخبار الأمريكية"
بأن 57 بالمائة من المراهقين والمرأفات هم مستخدمون للمنشّطات. وقالوا بأنهم
تأثروا بقراءة المجلات المتخصصة للعضلات في استخدامهم للعقاقير. أما 42 بالمائة
منهم فقد قرروا استخدام المنشّطات لأنهم ظنوا بأن المشاهير من الرياضيين
والرياضيات كانوا يستخدمونها.

الغشانون:
"..." يركز الأمريكيان على المظهر الجسدي أكثر من الميزات الأخرى. وهذه الرسائل السلبية تظل تقصف شبابنا بشكل ثابت. إن الرسائل الخاطئة المرسلة غالبًا ما تشير إلى أنه لا يتأس من الخداع لكسب فائدة رياضية أو استخدام مواد كيميائية (التغيير) مظاهر أوجاسنا للمشاركة في الألعاب الرياضية أو للظهور بمظهر جيد.

يدعو كورسن عضو سابق لفريق كرة القدم في بيتسبيرج ستيلرز قائلاً: "إن جذور استخدام المنشطات ينبث من إدمان المجتمع على مبدأ الأقوى والأسرع الأضخم. وإن عقلية الفوز بأي ثمن تعد (طريقة تفكير) تؤدي إلى الغش والخوض في سلوك لا أخلاقي. أنا أسف لبعض الأشياء لكني أسف أكثر لبيع نفسي باستعمال العقاقير في إطار المنافسة."
يقول كورسن بأنه تعرف على المنشطات في سن الثامنة عشر من قبل مدرس الكلية. وقد استخدم العقار خلال سنواته للاعبة كرة القدم للمحررين بالكلية. وبسبب الإستيرويدات تدهورت حالته قلبه الصحية بشدة.

ويعترض أيضاً قائلًا:

"كنت لا شيء في دوري كرة قدم الوطني (إن إف إل) ليس أكثر من مقاتل أو مصارع عالي الأجر جداً يلعب به كيفما أتفق. أريد الأولاد أن يتعلموا أن بإمكانهم أن يكونوا أعظم من المصارعين وأن بإمكانهم أن يستغلوا رياضة ما لتربتهم دروس حول الحياة ولا يدعونها هي التي تستخدمها."


السوق السوداء المزدهرة:

غالباً ما يمرر المستخدمون المنشطات عبر وسائل باهظة الثمن وغير شرعية. فالطلب المتكرر للمنشطات يخلق سوقًا سوداء أو غير شرعية. فالبيع غير الشرعية للمنشطات والإستيرويدات فاقت ال50 مليون دولار سنوياً.

بعض البالغين الذين يتدربون في النوادي الصحية أو الجماليات أو يذهبون إلى المسابقات المختلفة هم الذين يبيعون المخدرات للمراهقين. وأحيانًا يبيعها مالك الجماليات نفسه. وبعض الأطباء والبيطريين يكتبون الوصفات المكثفة للمحررين عديمي الأخلاق الذين يريدون بناء كتلة عضلية للمراهقين الرياضيين والرياضيات بسرعة. وهذه الأدوية الموصوفة يجب أن تصرف وتستخدم بناءً على أوامر طبيب مكتوب. وعلى كل فمصادر الطلبات البريدية تبيع العشائر من المنشطات.
والإستيرويدات المختلفة. وهذه الأعمال التجارية يمكن لها أن ترسل المنتجات إلى المدن أو البلدات عبر الولايات المتحدة دون الحاجة إلى وصفة.

يبيع المراهقون المنتجات أحياناً إلى مراهقين آخرين. فحسب التقرير الدولي للأخبار الأمريكية لعام 1992 فإن 25 بالمائة من المراهقين والمراهقات المستخدمين للمنتجات يقومون ببيعها أيضاً. يقول أحد طلاب الثانوية بولاية فرجينيا بأنه وصديق له قاما بسرقة المنتجات من صيدلية كانا يعملان بها. ثم باعوا العقاقير المسروقة في المدرسة بشكل رهيب. "فكل من يعرف فقط يحتاج إلى زيارة خزانة الرجل وهو سيقوم بإكمال اللازم."

يفترض أحد مراهق ولاية آيوا "إن تحدي العثور على المادة يعد نصف المرح.

يقول ابن السابعة عشر بأنه قابل عناصر العقاقير في مواقف السيارات وكان يختبر العقاقير بتذوقها للتأكد من أنها حقيقية. فما لا يعلمه العديد من المراهقين والمراهقات أن ثلث إلى نصف ما يشتريه المراهقين والمراهقات من المنتجات غير الشرعية مزيفا.

إن أكثر منتجات السوق السوداء تصنع خارج الولايات المتحدة. وهناك دائما فرصة كونها مزيفة أو مخلوطة بعقاقير أو مواد أخرى. فعلى سبيل المثال يقول أحد المراهقين والمراهقات بشيكاغو بأنه صرف آلاف الدولارات في ما أعطى بأنها
الستيرويدات سائلة. والذي حصل عليه فعلا كان خليط من الملح والماء وأحيانا بنسلين أو مضاد حيوي أو أدوية ببطرية تباع بشكل خاطئ على أنها ستيرويدات.

القانون:
إن لكل من الحكومة الاتحادية والرسمية قوانين لسيطرة على سوء استخدام الاستيرويدات البنائية. ففي عام 1988 أصدر الكونجرس قانونًا لمكافحة سوء استخدام العقاقير. هذا القانون جعل توزيع وامتلاك الاستيرويدات البنائية لأسباب غير طبية يعد جريمة فيدرالية.

العقوبات الفيدرالية لإستخدام الاستيرويدات الغير شرعي

<table>
<thead>
<tr>
<th>العقوبة</th>
<th>الحالة غير الشرعية</th>
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</thead>
<tbody>
<tr>
<td>السجن لمدة 5 سنوات</td>
<td>ضبط التصنيع أو التوزيع للمرة الأولى</td>
</tr>
<tr>
<td>غرامة قدرها 15000 دولار</td>
<td></td>
</tr>
<tr>
<td>اختبار إلزامي لمدة عامين</td>
<td></td>
</tr>
<tr>
<td>السجن لمدة 10 سنوات</td>
<td>ضبط التصنيع أو التوزيع للمرة الثانية</td>
</tr>
<tr>
<td>غرامة قدرها 30000 دولار</td>
<td></td>
</tr>
<tr>
<td>اختبار إلزامي لمدة عامين</td>
<td></td>
</tr>
</tbody>
</table>

وفي عام 1990 شدد الكونجرس القوانين وأصدر تحت قانون 1990 لإستخدام الاستيرويدات البنائية قانوناً آخر لإدارة تطبيق العقاقير (دي إي أي) والذي ينظم ويحكم استخدام الاستيرويدات البنائية. فأصبحت جريمة فدرالية حيازة أو بيع أو تصنيع لأغراض غير طبية أي من الاستيرويدات البنائية. وفي حالة الضبط يعاقب المنتهك للقانون بما يقارب العشر سنوات في السجن. هذه حقيقة في كل الولايات و مقاطعة كولومبيا.
إبحث عن المؤشرات:

بصعاب اكتشاف مستخدم المنشطات أحياناً مالم تعرف ما تبحث عنه تماماً. وهنا بعض الإشارات التحذيرية:

- وجود حبّ شباب أو بثور كبيرة على الوجه أو الظهر.
- تدريبات تمتاز بجهد أكبر واهتمام بالفوز فقط.
- لديه مشاكل مع مسؤولي تطبيق القانون.
- أنفاخ في الوجه والجسم.
- يستطيع زيادة وزنه بسرعة وفي وقت وجيز.
- إهترباء الماء بالجسم.
- مشاكل في النوم.
- زيادة مفاجئة في الشهية.
- تغيرات مزاجية مفاجئة.
- سلوك عنيف

لأولئك الذين يسيئون إستخدام المنشطات مفردات معينة أو لغة خاصة، وفي غالب الأحيان تكون شائعة بين مستخدمي المنشطات الآخرين أيضاً.

<table>
<thead>
<tr>
<th>المصطلح</th>
<th>المعنى</th>
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</thead>
<tbody>
<tr>
<td>المزج</td>
<td>الخلط بين عقاقير مختلفة</td>
</tr>
<tr>
<td>الصقل</td>
<td>إمتلاك عضلات كبيرة</td>
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<tr>
<td>التضخيم</td>
<td>زيادة الكتلة العضلية باستخدام الإستيرويدات</td>
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<tr>
<td>الدورة</td>
<td>فترة ثمانية إلى إثنا عشر أسبوعاً تستخدم خلالها</td>
</tr>
</tbody>
</table>
المنشطات.

وبعد ذلك يترك المستخدم جسمه يرتاح لنفس الفترة.

التخدير إستخدام المنشط لتحسين الأداء الرياضي

العصر أو المادة أو الرويد (إختصار ستيرويد)

الاستيرويدات البنائية

الجرعة الهائلة إستخدام كميات هائلة من الاستيرويدات

الوصول إلى الهضبة عندما لا يستجيب الجسم لجرعة معينة من الاستيرويدات

هيجان الاستيرويدات غضب لا يمكن السيطرة عليه وإحباط أو النزوع إلى العراك جراء إستِخدام الاستيرويدات البنائية

راكب المتعة أو شارب العصير أو الـ (رويدر)

مستخدم الاستيرويدات الذي يستخدم العقاقير فقط من أجل المظهر

إطلاق الطلقة أخذ المنشطات على أساس أصبت أو أخطأت

التكديس التجمع في إستخدام أكثر من نوع من الاستيرويدات

الهضم إنقاص الاستخدام ببطء

العنف والجريمة:
إن المستخدمي المنشطات مزاج متقلب بشكل كبير. فقد يشعرون لوهلة بالسعادة وفجأة يبدو عليهم الغضب وسوء الطباع. بعض الناس يصبح مندفعين ويظهرون سلوكاً خطراً. وآخرون يصبحون مكتئبين ويفكرون جدياً بالانتحار. يمكن للذكور والإناث أن يصبحوا أكثر عدءاً عند استخدام المنشطات. هذا ما يدعى بهيجان الإستيرويدات. هذه الانفجارات من الغضب يمكن أن تؤدي إلى العنف. لا يمكن لأحد أن يتوقع من وما سيواجه هيجان الاستيرويدات. لكنه ينتهي أحياناً بعنف ضد آناس أخرين. إن أعمال العنف يمكن لها أن تؤدي إلى التوقف والسجن لبعض الوقت.

يقول دارن، مستخدم سابق للمنشطات من مدينة باسادينا بولاية كاليفورنيا: "بأنه كان شاباً سهل التعامل معه وفي سن السادسة عشر بدأ استعمال المنشطات وبدأ في التغيير. يذكّر قائلاً " كنت أمارس أساليب العدوانية حتى الخروج من السيارة وإثارة أسباب الصراع في تقاطعات الطرق. لم أستطيع السيطرة على أي نوع من الضغط. لذا تراني أنفجر فجأة!"
"جو" (ليس إسمه الحقيقي) مستخدم للمنشطات ومواجه لهيجان الإستيرويدات

يدقول "إن عقليتك تتعтиров بالكامل وتتبدل من كونك رجلاً طبيعياً ذكياً إلى شخص ما يلجأ إلى ضرب الناس إذا لم يتفقوا معك. أنها عقلية جسديّة كلياً وعدوانية جداً.

في مدينة شاربز بولاية فلوريدا تستدعي أم مرة أخرى الشرطة لإبنها إيريك.

أول ما بدأ إيريك بإستخدام المنشطات في سن الحادية والعشرين حينما كان يدرس في الثانوية العامة. وخلال السنوات الثلاث أعطل عشرة مرات بسبب سلوكه العدواني حين يستخدم المنشطات. وهذه المرة وضع مسؤولو السجن إيريك في سجن إُفرادي. ذلك يعني بأنه حبس في زنزانة صغيرة وحيداً ولا يستطيع أن يرى أو يكلّم أحداً. وبينما هو في الزنزانة، يقوم إيريك بشنق نفسه حتى الموت.

أسوء الحالة، يقوم إيريك بشنق نفسه حتى الموت. لن يعلم أبداً بالضبط لماذا شنق إيريك نفسه. لكن بالتأكيد لم يساعدّه استخدام المنشطات.

3- قصص واقعية

أثناء فصل الصيف وقبل تخرجه بعام واحد من المدرسة الثانوية، يتدرّب مايك بشدة لكي يكون نجم كرة القدم. لكن هذا المراءح من ولاية إلينويز يريد إداء مميزاً. لذا بدأ باستخدام حبوب الإستيرويدات. لماذا? " كنت ألعب كرة القدم بحثاً عن منحة دراسية. حسبت أن الإستيرويدات قد تمنحني فرصة أفضل.

إرتفع وزن مايك بسرعة من 147 إلى 176 باوند. وعلى كل حال، لم يرى مهاراته كمدافع خلفي تتحسن كثيراً، فتوقف عن استعمال الإستيرويدات.

وبعد فترة أخرى حاول ثانية. ولكن هذه المرة استخدم حقن الإستيرويدات.

ويتذكر قانا " كنت مرتعبا في باديء الأمر لأن أكره الإبر. لكنها لم تكن تولى مطلقا. ومرة أخرى، زداد مايك وزناً مع بعض القوة. وفي نهاية المطاف، خسر حلمه. في سبيل الوزن الإضافي، فقد أورث عضلة كتفه الأيسر. فأصبح كتفه يبلغ في كلّ مبارة. إنه بالي الأمر بلبلس دعامة وإجراء عمليات لتصليح الضرر فقد أصبح كتفه تالفاً تماماً الآن.
إهمال التأثيرات السلبية:

يوضح أحد المراهقين والمراهقات المستخدمين للإستيرويدات بهذه الطرقية:

"توجدت آثار جانبية [تأثيرات غير مرغوبة من استخدام العقاقير] للكي لا أبه؛ فذلك يخبرني بأن المواد فعالة.

بيع المنتجات غير الشرعي:

في مارس عام 1992 تم القبض على أحد نجوم المصارعة بمدرسة ثانوية في نيو جيرسي يبيع المنتجات. غُرّم أولاً ثم كتبت الصحيفة المحليّة بأنّ هذه كانت "إحدى المئات ربما آلاف من حالات استخدام المنتجات" في مدارس وسط نيو جيرسي.

الأوقت الضائع:

في إحدى ضواحي شيكاغو يخطط ديف للذهاب إلى شاطئ ديتونا بفلوريدا خلال إجازة الربيع. كان يدرس في آخر سنة بمدرسة ثانوية ويتدرّب على رفع الأثقال. كان جسمه مكتمّط بالعضلات. ولكنه أراد أكثر فيتذكَّر قائلاً "كان لدي صديق يُركب مادة الأندرويل (استيرويد معروف) وباعني هو بسعر رخيص جداً.


يوضح ديف "أوقفت استخدم الرويد (الاستيرويدات) قبل أسبوع لأنّي لم أردها في جسمي وأنا أحسسي الخمار (في فلوريدا). لكنّ ذلك لم ينجح. فأثناء عودتي للمنزل على متن الطائرة، مرت مريضا شديدا بحيث أعتدت أنّي سأموت."لم يكن ديف مريضا فقط، ولكن جسمه تغير أيضاً. فبعد أن توقف عن استخدم الاستيرويدات أختفت مكاسبه من وزن وقوته. يقول "انتهت بي المطاف أصغر وأضعف مما كنت عليه سابقا. كان مضيعة للوقت.

مراهقون يهفوون حياتهم بأيديهم:

يقرر ابن الثامنة عشر ربيعا زيادة حجمه وقوته، فيقوم بشراء واستخدام الاستيرويدات البنائية بشكل غير قانوني. وينصحه والده عدة مرات بالتوقف عن
لا الأب ولا الإبن يعرفان بالتغييرات التي يمكن للاستيرويدات أن تسببها فالفكابية أمر عادي جداً عندما يتوقف المراهق عن استخدام العقار.

أخيراً يصغي الشاب إلى نصائح أبيه ويتوقف عن استخدام الإستيرويدات. لكنه سرعان ما يصبح مكتئباً جداً. وبعد شهر واحد يذهب روحه بنفسه. لم يترك ملاحظة لذا فلن يعلم أحداً أبداً بالضبط ما الذي أوصله هذا الشاب إلى مثل هذا الفعل العنيف. لكن الكابية التي سببها انحساب الإستيرويد من جسمه قد ساعدت بالتأكيد.

المكافآة بعدل؟


عضلات هوجان المزيفة:

هولك هوجان المصارع المحترف الذي يصل طوله إلى ستة أقدام وستة بوصات ويزن تحت ثلاثمائة باوند فقط ويكسب كل عام ملايين الدولارات لعمل الإعلانات التجارية والأفلام. فاز أيضاً بطولة إتحاد المصارعة العالمية عدة مرات. فمنذ أواخر السبعينات أعلن النجم البارز عدم إستخدامه للمنشطات قاهم في أحد برامج الحواريات التلفزيونية عام 1991م "لسنت ممن يسأ استعمال المنشطات. فهي بمثابة أن تضع السم داخل جسمك" واعترف بأنه قد استخدم المنشطات لفترة قصيرة عام 1983م لكنه قال بأن الطبيب قد وصف العقار لتمزق أصاب عضلته ثانية الرأس.
وبعد ذلك في يوليو 1994م توجب على هوجان الذهاب إلى المحكمة للشهادة في قضية استيرويدات ضدّ فنسينت مكمهون المالك لمؤسسة المصارعة العالمية. عندها اعترف بأنه قد استخدم الاستيرويدات لـ"يصبح ضخماً. وقال أيضاً إن مكمهون قد ساعد على تقديم الاستيرويدات. وأوضح قائلاً " كنت أمرً بالمكتب لأخذ المنظفات مع شيك الراتب وبريد معجبين". وفي أثناء استمرار القضية ضدّ مكمهون يقرّ هوجان بأن حوالي 80 بالمائة والتي تمثل أربعة من أصل كلّ خمسة مصارعين عرفهم في الثمانينات كانوا يستخدمون الاستيرويدات.

المخاطرون:
بدأ "توم" (ليس اسمه الحقيقي) التدريب بالأوزان ليبقى لائقاً بعد أن كسر ساقه. فقوي جسمه وكبرت عضلاته. لكنه كما قال "آردت حجم أكثر وأسرع"، فطرح شريك تدريب له استخدام الإستيروييدات. لذا بدأ في استخدامها في فترة الصيف. استخدم حبوب الإستيروييدات وحقن العقاقير أيضاً في عضلات أرداه. وتفاجأ عند العودة إلى المدرسة في شهر سبتمبر. "فقد كانت ردة فعل ضخمة للشباب والبنات. وكنت مصدوماً في باديء الأمر ولكن بعد فترة بدأت أحبه.

عندما توقف توم عن استخدام الإستيروييدات، فقد وزنه بسرعة. فقام بشراء منشطات أكثر وبدأ باستخدامها ثانية. ويوضح "ربما يمكنك إخفاء الآثار الجانبية الجسدية لوقت طويل إذا عرفت كيف تفعل ذلك، لكني لستطيع أن تتفادى ما تفعله المنشطات داخل رأسك" (غضب الرويد وآثارها الجانبية الشائعة جدا).

الضغط الأبوتي:

يدفع أحيانا الأباء أبنائهم المراهقين والمهربين إلى أخذ المنشطات. يقول محامي من سان دياغو يدعى فيليب هيلبرن، "لقد كشفت أمثلة عديدة عن أباء يحصلون على المنشطات لأبنائهم لأنهم يريدونهم أن يكونوا من أفضل الرياضيين والرياضيات.

عشر طلاب المدارس يتفوقون لعب كرة القدم للمحترفين في المستقبل. يقول أحد المراهقين والمراهقات "يقول زوج أمي بأنه سيبدأ استخدام الإستيروييدات معي حالما يكتمل النمو عندي.

الضغط في الصالة الرياضية:

بدأ جريج بالتدريب في صالة رياضية محلية، هناك حيث إشترى منشطاته للمرة الأولى. في البداية، كانت الاستفادة كبرى من العقاقير. وفي أقل من إثنان وعشرون شهرًا، إزداد وزنه من 183 إلى 242 باوند. لقد بني الكثير من الكتل العضلية وكان مسروراً من النتيجة، فقد استخدم المنشطات لمدة ثلاثة عشرة سنة. ثم، بدأ ببيع المنشطات إلى المراهقين والمراهقات. على مدى سنوات طوال، قدر بأنه قد بيع المنشطات إلى أكثر من مائة مراهق. وذكر قالا، "جاني - هذا الطفل بين الخامسة عشر، فجعلته منه ً".

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وحشاً أضيفت له من 150 إلى 236 باوند سنوياً، حتى خرج عن السيطرة، فأصبح كثير الشجار متعاهد السرقة.

و كنتيجة لإستخدام ستيرويدهاته الخاصه، أصيب جريج بضغط دمّ المرتفع وانخفاض في الغدد اللمفاوية. (تحتوي الغدد اللمفاوية على خلايا كبيرة تمتنص المواد الضارة والأنسجة الميتة. وتظهر متسلسلة في الرقبة والأبطين والأربية وقرب أعضاء أخرى وفي الأوعية الدموية الكبيرة.) عندها بدأ جريج بالشعور بالذنب بشأن ما عمل بالشباب الذين باعهم الستيرويدات.

أما الآن فقد تبدلت حياته جذريًا فأصبح يتكلم مع الشباب في المدارس حول أخطار الاستيرويدات.

4- أخطار الاستيرويدات.

كان الباحثون الأوروبيون أول من طور الاستيرويدات في الثلاثينات. وكان هدفهم مساعدة الناس في إعادة بناء أنسجة الجسم الضعيفة من جراء المرض. وبعد نهاية

بعد التدريب في الأندية الصحية أو صالات الرياضة طريقة جيدة للمحافظة على اللياقة البدنية، لكن استخدام الاستيرويدات لا يمكن بدأًا جنباً إلى جنبًا لليوتين اليوتيوتي للتدريب، حيث يمكن للأثار الجانبية التي تصاحب سوء استخدام الاستيرويدات أن تكون مهينة في بعض الحالات.
الحرب العالمية الثانية في 1945م كان للإستيرويدات استخدامات جديدة. فقد أعطت للأعداد من الجوعى داخل معسكرات الاعتقال فساعدة هذه العقاقير السجناء الهزيلين في تعزيز أوزان أجسادهم.

بدأ استخدام الاستيرويدات في الألعاب الرياضية في أوائل الخمسينات أثناء الألعاب الأولمبية حين اكتشف مجموعة من الرياضيين والرياضيات بأن بعض الرياضيين والرياضيات السوفييت والأوروبيين الشرقيون قد استخدموا كميات كبيرة من الاستيرويدات. ونتيجة لذلك كان لديهم عضلات كبيرة وقوة رهيبة. وعند انتشار هذا الخبر حول العالم، بدأ الرياضيون والرياضيات في البلدان الأخرى باستخدام الاستيرويدات.

يمكن للإستيرويدات أن تسبب العديد من الآثار الجانبية الخطرة. كما تعطي فوائد غير عادلة أيضاً للرياضيين الذين يستعملونها. ولذلك القوانين غير العادلة تم مع الاستيرويدات في الألعاب الأولمبية منذ 1975م. كما تمنعها معظم منظمات الألعاب الرياضية للهواة والمحترفين أيضاً ويتم الفحص عنها لديهم بإنتظام.

تعريف الاستيرويدات:

الإستيرويدات البناءة هي مركبات تشبه (التيستوستيرون) هورمون الجنس الذكري. غير أنها صناعية أي أنها تصنع في المختبرات. من الأستيرويدات المختلفة تم تصنيعها كل واحد له تأثيرات مختلفة. بعضها تساعل لمعالجة مرض ما أو إصابة، والبعض الآخر لبناء العضلات وزيادة القوة.

بالرغم من أن التستوستيرون يدعى هورمون ذكوري، إلا أنه يوجد في كل من الذكور والإناث. لكن الذكور ينتجون كمية أكثر من التستوستيرون من الإناث. فنتج الذكر الطبيعي البالغ التستوستيرون يومياً بمعدل 2.5 إلى 11 ملغ بغرام.

وبالمقابل، يتم استخدام المستخدم المتوسط للإستيرويدات أكثر من 100 مج يومياً.
المنظمات الرياضية التي تمنع استخدام الإستيرويدات

- الاتحاد الرياضي الدولي للهواة
- الاتحاد الدولي لبناء الأجسام
- اللجنة الأوليمبية الدولية
- الجمعية الوطنية الرياضية للجامعات
- إتحاد كرة القدم الوطني

وظائف التيستوستيرون

- يمكن أن يؤثر على العواطف
- يسبب نمو الجلد والشعر
- يساعد على بناء العظام والعضلات
- تعزيز الأعضاء الجنسية

يسبّب التيستوستيرون نمو شعر الجسم وتعميق الصوت عندما يبدأ الأولاد مرحلة النضج.

يمكن للأستيرويدات البنائية أن تؤخذ في شكل أقراص أو في شكل سوائل. إن الشكل السائل يحقن في العضل. يتم تخزين معظم الاستيرويدات البنائية المحقونة في دهون الجسم وتبقى هناك لعدة أسابيع. ويمكن لها أن تسبب المشاكل الصحية طول بقائها داخل الجسم.

الإستخدامات الطبية:

تعتبر بعض الاستيرويدات والعقاقير الطبية مفيدة عند استخدامها بشكل صحيح. وتحت إشراف طبي. مثال ذلك عقار يدعى الكورتيكوستيرويد وسمى الكورتيزون.
بالإسترود المفيد. يستعمل الكورتيزون لمعالجة العديد من المشاكل الصحية، من إصابات الأوتار وحتى مشاكل الإبصار.

يجب على الأطباء أن يستعملوا الإستيرويدات بعناية وكميات بسيطة تفاديا لآثارها الجانبية المتعددة والممكن حدوثها. وما يقلق حقا هو الاستعمال الغير شرعي الغير الطبي للإستيرويدات. فالكمية المستخدمة بشكل غير قانوني من قبل البالغين أو المراهقين والمراهقات في أغلب الأحيان تعادل خمسين إلى مائة مرة ضعف الكمية المستخدمة من قبل الأطباء لمعالجة الأمراض.

<table>
<thead>
<tr>
<th>بعض الاستيرويدات يمكن أن تُعالج:</th>
</tr>
</thead>
<tbody>
<tr>
<td>الطفح الجلدي التحسسي</td>
</tr>
<tr>
<td>مرض نقص هرمون الذكر. فالمرض من الرجال بهذا المرض لا يستطيعون إنتاج ما يكفي من التستوستيرون داخل أجسادهم.</td>
</tr>
<tr>
<td>أمراض الدم مثل فقر الدم والفشل الكلوي. (يحدث فقر الدم عندما لا ينتج الجسم خلايا دم حمراء بشكل كافٍ.)</td>
</tr>
<tr>
<td>ضعف التكوين العضلي. يمكن مساعدة بعض الناس أحياناً الممن يعانون من بعض أنواع السرطان أو الحروق أو الأبيد باستخدام الاستيرويدات.</td>
</tr>
<tr>
<td>وهن أو نخر العظم.</td>
</tr>
<tr>
<td>بعض أنواع سرطان الثدي.</td>
</tr>
</tbody>
</table>

مثل هذه الزيادة يمكن لها أن تسبب العديد من المشاكل الصحية، وأحياناً وكما حدث لبعض الشباب، يمكن لإستخدام الإستيرويدات المفرط أن يسبب الوفاة. ذلك ما حدث للاعب بناء الأجسام ذي الثلاث وعشرين ربيعاً الذي أشتكى من ألم حاد أخذ بعده إلى المستشفى. وجد الأطباء أن كبده وكليته قد توقفت عن العمل. فأسرعه إلى وحدة العناية المركزة. لكن وبعد أربعة أيام، توقف قلبه مسبباً الوفاة. وعندما فحص الأطباء جسمه ثانية، اكتشفوا مستويات عالية من الإستيرويدات.

هل يعد إستخدام الاستيرويدات مجديا؟

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تحاكي الإستيرويدات البنائية تأثيرات التستوستيرون في بناء الأجسام. لذا فالإستيرويدات البنائية تُسبّب البناء العضلي، يفيد الرياضيون الذين استعملوا هذه العقاقير عن زيادة في الكتلة العضلية والقوة والتحمل. ويزداد الناس وزنا عند استخدامهم للإستيرويدات. ومع ذلك فغالباً ما تكون تلك الزيادة في الوزن نتيجة لإنسحاب الماء في الجسم.

لا تعد هذه التغيرات دائمة. فالناس الذين يستخدمون الإستيرويدات بشكل غير قانوني غالباً ما يغألون جدا في استخدامهم. فيستنزفون كميات ضخمة كل يوم. وأكثرهم يدخلون في دورة استخدام الإستيرويدات. فيستخدمون الاستيرويدات لعدة أيام، ثم يتوقفون عنها لعدة أيام أخرى، ثم يستمرّون بهذه الدورة من استخدام وإيقاف. والبعض الآخر يعتمد الاستيرويدات من ستة إلى اثني عشر إسبوعًا أو أكثر، يتوقفان بعدها لعدة أسابيع، ثم يبدأون دورة أخرى من الاستخدام المكثف. وإثناء التوقف عن تعاطي الإستيرويدات، يفقد المستخدمون أوزانهم وقوّاتهم.

يحكى مساعد المدرب الأسبق بجامعة ألاباما ريتشارد إل ساندلن، يقول:

"لقد استخدمت الاستيرويدات منذ عام 1976 إلى 1983. وفي منتصف عام 1979، بدأ جسمي بالإصفرار. كنت عدوانياً وشرساً جداً، أعني من ضغط الدم العالي وضمور في الخصيتين (إنكماش الخصيتين). وجب على التوقيت في المستشفى مرتين للإشتباه بفشل كلوي وأورام بالكبد واضطرابات وتغيرات) شخصية حادة. أثناء إقامتي للمرة الثانية بالمستشفى، أكتشف الأطباء أنني قد أصبحت عقّيماً. وبعد سنتين بعد أن ترك الاستخدام وبداية التدريب بدون عقاقير، سجلت ستة أرقام عالمية قياسية جديدة في رفع الأثقال، الشيء الذي أعتقد بأنه مستحيلا بدون الاستيرويدات."
تذكر أحد لاعبين بناء الأجسام السابقين هذا الموقف حول ما فعلت الإستيرويدات

بصديقة له قالتا:

"دخلت هذه الصديقة إلى الصالة الرياضية بعد أنقطاع دام ثلاثة أسابيع. كان وجهها مربّعاً، تغطيه كميات غير عادية من الشعر الأشقر. وكان صوتها عميقاً جداً وظهرها مليئ بحبٍ شباب لم تعتده من قبل. لقد استبدلت جمالها بمسخ في غضون ثلاثة أسابيع".

تلك الصديقة كانت تحتفن كميات كبيرة من الإستيرويدات. إن الاستخدام المستمر للإستيرويدات يمكن أن يسبب العديد من المشاكل الصحية عند كلا من الرجال والنساء.

بدأ هارون باستعمال الإستيرويدات في سن المراهقة. كان لاعب بناء اجسام منتظم. أراد أن يكون أكبر وأقوى. "خلال ثلاثة إلى ستة أشهر تماماً أنتقلت من معاناة رفع برونز باوند مرة واحدة إلى رفع 300 باوند لإثنا عشرة مرة بيسر وسهولة. لكنه أصيب بمشاكل خطيرة في الكبد جراء استخدام الإستيرويدات. كان الموت وشيكاً جداً.

المشاكل التي تسببها الإستيرويدات عند الرجال

- حب الشباب
- صلع أو تساقط الشعر
- الكآبة
- الصوت عالي النبرة
- عدم القدرة على الإنصباب
- زيادة أو نقص الدافع الجنسي
- التهاب عن البيول
- زيادة خطر الإصابة بسرطان البروستات أو الخصية
- العقم (عدم القدرة لإعادة إنتاج الحيمين)
- تضخم الثدي
- إحساس حيمني منخفض
- انكماش الخصيتين (عدم الجنس عند الذكر والتي تنتج الحيمين)
- مشاكل النوم
المشاكل التي تسببها الإستيرويدات عند النساء

<table>
<thead>
<tr>
<th>حبّ الشباب</th>
<th>صلع دائم</th>
</tr>
</thead>
<tbody>
<tr>
<td>تغير أو توقف الدورة الشهرية</td>
<td>صوت رجولي</td>
</tr>
<tr>
<td>ظهور الشعر على الوجه</td>
<td>زيادة أو نقص الدافع الجنسي</td>
</tr>
<tr>
<td>العقم (عدم القابلية لإعادة إنتاج الحимв)</td>
<td>إنكمش الأثديين</td>
</tr>
</tbody>
</table>

قيل هارون الآن بأنّ الإستيرويدات خطرة جداً. "أنا هنا لأخبر الناس خصوصاً الشباب بأنه نعم يمكن أن يحدث هذا، ونعم، يمكن أن يحدث لك."

لم يكن (بنجي) محظوظاً كهارون. كان بنجي ابن السابعة عشر يدرس في مرحلة الثانوية العامة ويلعب ضمن فريق كرة القدم لمدرسة أستاول الثانوية في أوهايو. إنهار أثناء التدريبات لعيد القيامة. ماذا قتل؟ الإستيرويدات هذا ما قال الأطباء. وجدوا بأنّ قلبه كان مريضاً، خصائصه قد إنكمشت، لديه جروح مفتوحة على أفخاخه. قال بعض الأصدقاء بأن بنجي أراد أن يضخ ولم يعتقد المراهق " بأن الإستيرويدات كانت تؤذيه أو أن استعمالها كان يساوي خطورتها.

المخاطر الأخرى:

هناك مخاطر جدّية أخرى ارتبطة باستعمال الإستيرويدات. إن أكثر الناس الذين يبدأون باستعمال الإستيرويدات باخنوشها في هيئة حبوب. ويرترّ البعض الآخر استعمال الحقن والإبر لحقن الإستيرويدات. العديد من أصناف الإستيرويدات يجب أن يحقن بحقن ضخمة وكبيرة القياس مثل إبر 1.5 بوصة. يقول إبن التاسعة عشر من أريزونا "المرة الأولى التي حاولت حقن نفسي بها، غبت عن الوعي تقريبًا، وأحد أصدقائي فعلًا غاب عن الوعي. "أحيانا يحقن الشباب في جهة واحدة من مؤخرته، واليوم الآخر في الجهة الأخرى وهاذا. بعدما سخر الجميع منه لأنه بالكاد أستطيع أن يجلس على مقعدته لثلاثة أيام على التوالي."
المشاكل التي تسببها الإستيرويدات عند الرجال والنساء

- ألم المفاصل
- حب الشباب
- الإدمان
- رائحة الفم الكريهة
- البرودة
- الصداع المتواصل
- الموت
- الشعور بالتعب
- الحمى
- أمراض القلب
- ضعف الدمو المرتفع
- الطفح الجلدي
- عدم القدرة على إيقاف الخلايا السرطانية
- زيادة احتمالية إصابة العضلات والمفاصل وبالتالي مدة شفاء أطول من الإصابة أثناء الاستخدام.
- الخطر المتزايد للنوبة القلبية أو الجلطة الدماغية
- أمراض الكلى
- سرطان الكبد وأمراضها
- تشنج العضلات
- الطفح الجلدي
- غضب الرويد
- تقرح اللسان
- ألام معدة
- تورم الأقدام أو الكواحل
- الإرتعاد
- تغيّر الدمو
- إصفرار الجلد أو العيون

يقول أحد لاعبي رافع الأثقال، "كلنا نعرف الذين يستخدمون الإستيرويدات. فنحن نتبادل المعلومات عن أي عقار جديد ينزل إلى السوق. ونحن نحصل على الإستيرويدات من خلال مالك الجمنازيوم. في الحقيقة، هو الذي يحتفنا بها في مخرتنا."
إما عند استخدام الأبر لأكثر من شخص، فيمكن أن يصاب مستخدمي الاستيرويدات بإلتهابات خطيرة مثل إلتهاب الكبد أو عدوى إتش آي في (الإيدز).

لا يمكنهم أن أكثر الناس يشترون الاستيرويدات بشكل غير قانوني، فهم حقا لا يعرفون بالضبط ما يشترون. فأي مستخدم يمكن أن يأخذ أي عقار غير الاستيرويدات دون علمه.

تحذير للمراهقين:

إستخدام الأطفال أو المراهقين والمراهقات للإستيرويدات يمكن أن يمنع عظامهم من النمو بشكل صحيح. وذلك يعني بأن نموهم لن يكتمل تماما. فحتى الجرع البسيطة من الاستيرويدات يمكن لها أن تؤثر على طول المراهق بشكل دائم. لذا نادرًا ما بلجأ الأطباء إلى وصف استيرويدات بنائية للأطفال أو المراهقين والمراهقات. وأيضا تلك الاستيرويدات البنائية تجعل أوتار العضلات ضعيفة. فالأوتار تربط العضلات بالعظام، وأوتار العضلات الضعيفة لن تستطيع حمل الوزن الإضافي الذي يضيفه المستخدمين.

وعليه يمكن أن تتمزق أو تقطع كليا.

تغييرات في الشخصية:

إن الأشخاص الذين يستخدمون الاستيرويدات يمكن أن يصبحوا بسبب الاستيرويدات متقلبي المزاج ومتغيري الشخصية. فالمستخدم قد يغضب أو عدائي بسبب أشياء تافهة. ويمكن لهم أيضا أن يظهروا من التهيج المفاجئ.

إدمان الاستيرويدات:

يمكن لمستخدمي الاستيرويدات أن يصبحوا مدخنين عليها. وعندما يحدث هذا، فإن رغبتهم أو إشتهائهم للعقاقير تجمح بهم بقوة بحيث يصبح من الصعبه بمكان إيقاف استعمالهم لها. فهم لا يستطيعون السيطرة على استخدامهم للإستيرويدات ويصبح لديهم إعتماد كامل عليها.
الإستيرويدات هي التي تسبّب تغييرات شخصية مثل:

- الكآبة
- السلوك المندفع
- زيادة العدوانية
- التهيج
- الغيرة
- نوبات غضب مزاجي
- مزاج وسلوك غير عادي

عندما يتوقف المستخدمون المعتمدون على الاستيرويدات عن استعمالهم لها، يمرّون بمرحلة إنسحاب. فالإنسحاب هي عملية تخلص الجسم من العقاقير. ويمكن أن ينتج عن الإنسحاب العديد من الأعراض. فالعديد من مستخدمي السابقين للإستيرويدات يخبروننا عن محاولاتهم للإنتحار.

يقول أحد المراهقين بميريلاند "يصبح لديّ نزوع حقيقي بالضغط عندما أنتهي من دورة عقار. "الأسف، ياله من يوم سيئ، أعتقد لو أنني لو كنت مستمر في الإستخدام لما حدث هذا."

قصة "لايل الزادو":

الرغم من أن لايل ألزادو كان سريعا إلا أنه لم يكن ضخما بما فيه الكفاية ليكون نجم كرة القدم للمحترفين. لذا في عام 1969 وبيّنما هو في الكليّة، بدأ بأخذ الاستيرويدات. وجدّها بكل سهولة. وباستخدام الاستيرويدات زيادة كمية الطعام والتدريب، استطاع زيادة وزنه من 190 باوند إلى حوالي 300 باوند. وبعد سنتين، لعب بموقع الدفاع مع فريق برونكو بدنفر. استمرّ ألزادو بأخذ الاستيرويدات. يقول:

"بقيت على استخدامها لأنني عرفت بأنني كان لا بد لي من الحصول على حجم أكبر. أصبحت عنيفا جدا في الملعب. وخاج الملعب أيضا. فتعلت أشياء فقط المحانيين من الناس"
يفعلونها. مرة عندما كنت أقود في دنفر عام 1979 تجاوز بسرعة رجل سيرتي، فإذا
بي أطاردته أعلى وأسهل التلال ومن خلال الأحياء. فعلت ذلك كثيراً. أطارد الرجل
ولاحظت من سيرته وأصرت ب.".. 

بعد ذلك لعب الزادو مع (كليفيلند براونز) و (لوس أنجليس رايدرز). جعل مهنته
خلال كلاً من المرتين عمله احترفياً. وبغض النظر عن أي فريق كرة القدم للمحترفين
ينضم إلىه، فقد واصل في استخدام الإستيرويدات. ساعد أيضاً خلالها لاعبي كرة القدم
الآخرين على الحصول على الإستيرويدات عند الطلب.

إعترف الزادو قائلاً " كنت نهماً للنصر بأسلوب وحشي. فهو كل ما أهتم به،
الفوز الفوز ثم الفوز . . شعرت بأنني كان لا بد أن أواصل. لم أكن أن كثيرة لربما
ثلاثة أو أربع ساعات كل ليلة. فظامي سريع جداً.

أوضح الزادو أيضاً لماذا لم يستطع التوقف . "لقد كان الإدمان، إدمان عقلي. لم
أشعر بالقوة مالم أستعمل شيئاً.

عرف الزادو بضرر الإستيرويدات. ارتفع مستوى الكولسترول لديه إلى عبان
 السماء لأكثر من أربع مائة. (أيْ شيء أعلى من 250 يعد مشكلة محتملة.) ونتيجة حقن
العديد من الإستيرويدات في مؤخرته، وجب عليه إزالة كتل من الأنسجة الصلبة منها.
كان البعض من تلك الكتل أكبر من البيسبول. وتذكر قائلًا، "أيضاً أصبحت أكثر مزاجية
أكثر فأكثر. وطلقت خلالها زوجتين. كنت دائما ما أصرخ في أي وقت أدخل إلى المطعم
أو الحالة أشعر أن على دائما أن أدقق في كل شيء للتأكد من أن لا أحد يعبث معي."

<table>
<thead>
<tr>
<th>أعراض الإنسحاب</th>
</tr>
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<tbody>
<tr>
<td>الإكتئاب</td>
</tr>
<tr>
<td>الصداع</td>
</tr>
<tr>
<td>عدم القدرة على النوم</td>
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<tr>
<td>فقدان الشهية والطاقة</td>
</tr>
<tr>
<td>إضمحلال العضلات</td>
</tr>
</tbody>
</table>
القئ
التعرق
فقدان الوزن

حتى بعد أن تقاعد الزادو من (إن إف إل) في 1985، استمرّ بأخذ الإستيرويدات. يقول:

"حاولت الإنقاص من الجرعة إلا أنني لا أتحمل فكرة كوني ضعيفاً. " حاول أيضاً العودة مع فريق الريدرز في 1990، لكنه أدى ركبته. وبعد جراحة الركبة أستبعد من الفريق. بعد ذلك مباشرة، سقط مغشياً عليه. وعندما أفاق كان الدم يغطي وجهه فقد كسر أنفه وتحتاج إلى عملية جراحية.

وبعد قضاء أربعة أيام في المستشفى ذهب الزادو إلى البيت، لكنه لاحظ وجود دوخة أحيانا. كان لديه مشكلة بالتوازن والتنسيق. كان يميل إلى اليمين عندما يمشي. وعندما بدأ بروية صورا متكررة ودغم في الكلام عاد إلى المستشفى. هناك أخبر بأنه يعاني من سرطان عضال في الدماغ.

عرف الزادو بأن استخدامه للإستيرويدات كان سبب السرطان لديه. كما أكد أحد الأطباء الذين عالجوه على ذلك. في الحقيقة بقي الطبيب يحذّر الزادو بضرورة التوقف عن أخذ الإستيرويدات. يقول الزادو بعد إكتشافه للسرطان:

"لو كنت أعلم بأنني سأمرض إلى هذا الحد لبذل قصارى جهدي للاهلب كرة القدم طبيعياً.

كل من يستخدم هذه المادة - لو إستمريت عليها لفترة طويلة جدا أو قمت أصلا بإستخدمها فسيحصل الضرار منها لا محالة. أنا لا أعني بأنك ستصاب بسرطان الدماغ بشكل قطعي ولكن سينالك ضرر بالغ وخطأ في بادي الأمر.".

أخبر الزادو قصّته إلى مجلة (الألعاب الرياضية المصورة) في يوليو/تموز 1991. بعدها بعام واحد كان قد فارق الحياة. كانت كلمته الأخيرة في مقال تلك المجلة

"إن قوتي لن تعود كما كانت بعد الآن إن قوتي الآن هي قلبي. توقفت لو كنت من مستخدمي الإستيرويدات أو هورمونات النمو البشري [بدائل الإستيرويدات] لقد كان على أنا ان أتوقف."
5- محاربة سوء استخدام الإستيرويدات

إن الوعي والتعليم هما عاملان مهمان في محاربة سوء استخدام الإستيرويدات. برامج العقاقير الإتحادية والمدارس والمجتمعات والتزود ألفردي للمعلومات والتعليم والمساعدة في التعامل مع الإستيرويدات.

كلٍّيات مقاطعة "أورنج"

إن العديد من كليّات مقاطعة أورنج بكليفورنيا قد طوّرت برامج عن سوء استخدام الإستيرويدات. فالبعض منها قد ركّز على التأثيرات السلبية لإستخدام الإستيرويدات. أيضا كتبت الكليّات السياسات لتوضيح لماذا يجب على الرياضيين والرياضيات ألا يستخدموا الإستيرويدات البنائية. هذه السياسات تخبر الطلاب الرياضيين والطالبات الرياضيات مسبقا بأن هذه الكليّات تقبل فقط نشاطات رياضية عادلة. إن استخدام الإستيرويدات يعد غشًا. ويمكن إجراء إختبارات الإستيرويدات في أي وقت كان. ولو تثبت استخدامهم لها تُستلموا أن طريقال كليّاتهم تلك.

برنامج أطلس:

أحد برامج العقاقير الذي أثبت نجاحه يدعى أطلس (تدريب المراهقون وتعليمهم تجنب الإستيرويدات). أبدع العلماء أطلس في جامعة العلوم الصحية بأوريغون. يعلم هذا البرنامج التعليمي والوقائي المراهقين والمراهقات كل شي عن الإستيرويدات البنائية وكيفية تجنبها. استمرت الدراسة لمدة عام واحد في واحد وثلاثون مدرسة في بورتلند بأوريغون. والحصيلة خضوع ما مجموعه 1506 طالب لاعب كرة قدم بأطلس أثناء فصل كرة القدم.

إن أساس البرنامج هو الفريق. أعطى المدربين وقادة فرق الطلاب سبعة محاضرات تستمر كل محاضرة لمدة خمسين دقيقة أسبوعيا حول مواضيع متعددة: كتلؤثرات الإستيرويدات والدعم الرياضي وتدريبات القوة ورفض العقاقير والرسائل الإعلامية المناوئة لإستخدام الإستيرويدات. بالإضافة إلى سبعة محاضرات أقيمت بغرف
الوزن من قبل موظفي البحث لجامعة العلوم الصحية بأوريغون. أعطي الأباء أيضاً معلومات عن برنامج أطلس ودعو للمشاركة في النقاش.

يقول الدكتور لين جولدبيرغ رئيس برنامج أطلس:

"إن برنامج أطلس يعد نظرة فريدة جداً للتعامل مع مشكلة استعمال الأستيرويدات بين الرياضيين والرياضيات فهو يتضمن منهج كامل للفريق يمكن الطلاب الرياضيين والرياضيات للقيام بالاختيارات الصحيحة من خلال التعلم. ونحن بدورنا نعلم الآن بأنه فعال."

إتحاد ثانوية ولاية مينيسوتا:

نظمت ولاية مينيسوتا برنامج تدريبي لمدة عشر أسابيع يعني بالطلاب ومدرب الأندية والمدربين الخاصين. وكان التثقيف عن العقاقير جزء مهم من هذا البرنامج. وكانت عملية تغطية الأستيرويدات قضية جدّية نظراً لإهميتها كما أخبر دوروثي.

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مكتتاب المديرين التنفيذي المشارك لإتحاد ثانوية ولاية مينيسوتا. أنتجت هذه المنظمة شريط فيديو عن الإستيرويدات والتي كانت تستعمل في المدارس في أرجاء الولاية.

الحكومة الإتحادية:

كما نشرت ثلاثة وكالات إتحادية معلومات متنوعة عن الاستيرويدات وهي مركز التبادل الوطني للمعلومات حول سوء استخدام العقاقير والخمر ووزارة التربية الأمريكية والمعهد الوطني للإستخدام الصحي والكتب المتوفرة للعامة عن طريق البريد أو من خلال مواقعهم على الشبكة العالمية.

المجتمعات:

إن المجموعات الوطنية المختلفة و الجاليات المحلية يعملان لمحاربة استعمال الاستيرويدات.

المنظمات الطبية:

إن الجمعية الطبية الأمريكية (أي إم أي) تدين أو ترفض بقوة استعمال الاستيرويدات من قبل الرياضيين والرياضيات. وتوافق الجماعات الطبية الأخرى الجمعية الطبية الأمريكية مثل الأكاديمية الأمريكية لطب الأطفال والكلية الأمريكية للطب الرياضي والأكاديمية الأمريكية لجراح الفم والعظام وأكاديمية (أستيوباثك) الأمريكية للطب الرياضي. وقد أعطت الأدلة من خلال كتيبات أعدتها تلك المنظمات حول أخطار الاستيرويدات.

برنامج (تارجت) الهدف:

يتمركز إتحاد الوظيفي لجمعيات الثانويات الرسمية بمدينة كانساس ميسوري. يدعم هذا الإتحاد برامج رياضية وموسيقية وفنية تدريبية تساعد على تعزيز الرياضيين. يوافق هذا البرنامج معلوماتا حول العقاقير بما فيها الاستيرويدات. ويستهدف غالبيته مدربي الرياضيين والرياضيات في سن المراهقة. يوضح أيضا للمدرسين الإشارات التحذيرية لاستعمال الاستيرويدات.
وفيما يتعلق بالتعامل مع مستخدميها، يوصي كذلك بخطة لإبعاد الإستيرويدات عن حياة الرياضيين والرياضيات والمدارس.

مركز بحوث الإستيرويدات الوطني (NSRC):

جون إل ليستيني، من كبار مشجعي نادي بيتسبيرج ستيلر، تعرفfestine على لاعب كرة قدم سابق يدعى ستيف كورسن. استعمل كورسن الإستيرويدات أثناء دراسته الجامعية وفي بداية مهنته كلاعب كرة قدم، والآن يعاني من مشاكل قلبية خطيرة بسبب الإستيرويدات. وابحذر الآخرين من أخطار الإستيرويدات فقد كرس كورسن وقته لمحاولة البالغين والمراهقين والمراهقات. بدأ ليستيني بالذهاب مع كورسن.

القيادة والإجراءات وال ракتات: "لقد أكتسبت معرفة هائلة عن الإستيرويدات فقط بالجلوس والإستماع إلى حديث ستيف مع فئات مختلفة من أنحاء البلاد.

وفي عام 1989 أسس ليستيني مركز الأبحاث الوطني لسوء استخدام الإستيرويدات والعقاقير الأخرى في الرياضة. يذكر ليستيني قائلاً "حصل كل هذا عندما أتاني مايك ويبستر ولاعبون قدامئ أخرى يريدون مساعدة إحد أعضاء فريقهم من الذين استعملوا الإستيرويدات ومرض مرضًا شديدًا". يقع مركز الأبحاث الوطني للإستيرويدات في مدينة ويرتون غرب فرجينيا برئاسة وإدارة جون إل ليستيني.

وحتى الآن فقد أستطاع المركز (NSRC) أن ينجح ما يلي:

- تحدث موظفيه على التلفزيون وبرامج الحوار الإذاعية في الكلية وофكلة.
- وفي المدارس العامة وفي المستشفيات بالإضافة إلى الشرطة في كافة أرجاء الولايات المتحدة.
- المساعدة في كتابة قانون الإستيرويدات البناء عام1990. (يجعل هذا القانون من عملية بيع الاستيرويدات جريمة إقليمية. فبائع الاستيرويدات يمكن أن يحكم عليه بالسجن لمدة خمس سنوات بالإضافة إلى غرامة مالية كبيرة. أما استخدام الاستيرويدات فيمكن أن تخضع المستخدم لغرامة مالية كبيرة وقضاء بعد الوقت في السجن أيضاً بكل بساطة.)
عرض العديد من المواد والحالات حول مخاطر الإستيرويدات على الأطفال والمرأهين والمراهقات والمعلمين والضيرويين ونوادي المحترفين ومختصسي الصحة ومسؤولي تنفيذ القوانين.

تشغيل خط هاتف مجاني ساخن للاستيرويدات يبدأ بـ800 ويستقبل المركز نداءات من جميع أنحاء الولايات المتحدة. على سبيل المثال: "ابن أتى أصبح عدوياً جدا فقد زاد وزنه ثلاثين إلى خمسين باونداً في الشهر الأربعة الأخيرة. ليس لديه أي أهتمامات شعبية تدريباته الرياضية."

يقول ليسيني "إن سوء استخدام الإستيرويدات يعد مشكلة عائلية. "إن التغييرات العاطفية تؤثر على كل عضو في العائلة."

يمكن لعائلة متخصصة مثل هذه العائلة أن تساعد أفرادها عند تعرضها مشكلة ما.

الأفراد:

شخص واحد فقط يمكنه أن يحدث فرق كبير في المعركة ضد استخدام الاستيرويدات غير شرعية.
جريج كوستاس:

حينما بدأ جريج تدريباته بصالة رياضية محلية شرع أيضاً بإستخدام الإستيرويدات. وبمرور الوقت شرع ببيع الإسترويدات للمراهقين في نفس الصالة. أستمر على ذلك لثلاث عشرة سنة. أما اليوم فما زال يمارس تدريباته لكنه توقف عن أخذ الإستيرويدات قبل عدة سنوات. ومن جرّه لكلّ إستخداماته للإستيرويدات فقد أصيب بمشاكل صحية خطيرة مثل ضغط الدم العالي والعقد اللمفاوية المنتفخة. لقد شعر بالذنب حيال حثّه المراهقين والراهقات إلى إستخدام الإستيرويدات. يتحدث مع أحد المراهقين والمراهقات في نفس الجمنازيوم المحليّ حول أخطار الإستيرويدات قائلاً "لقد كنت مخطئ طوال الثلاث عشرة عاماً وقد كان وقت التعديل."

براين أيستس:

تكلم الصيدلي براين أيستس مع آلاف المراهقين والمراهقات حول أخطار الإستيرويدات. فهو مدرّب في مختبر العناية الصيدلية في جامعة مينيسوتا لكلية الصيدلية. وهو أيضاً مدير الشؤون الإحترافية لجمعية صيادلة مينيسوتا. يقدر بأن من كل 3 إلى 4 بالمائة من المراهقين الذكور بالمدارس الثانوية قد استخدموا الإستيرويدات. ولاحظ أيضاً "أن في أغلب الأحيان يكون هؤلاء المراهقين مدمني للكحول أيضاً."

يعتبر أيستس جزءاً من مجتمع الصيادلة الذين يركزون على تعليم الطلاب في المدارس مخاطر الإستيرويدات. يشارك حوالي خمسة عشر إلى عشرون صيدلياً أخرين في هذا البرنامج الوطني. ويبدأ أيستس مناقشته بالحديث عن الوضع الحالي قائلاً "إن الفوز هو كل شيء في أمريكا. هناك الكثير من الضغوط على الشباب اليوم. أعتقد بأننا نعاني تغاضينا عمّا يسمى بالألعاب الرياضية. وفي الوقت الحاضر، لا يوجد إلا ألعاب ذات مخاطر عالية لها مردود وافر من المال."

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يستعرض تأثيرات الإستيرويدات قائلاً: "ينزعج الرجال عند سماعهم بأن خصائصهم يمكن أن تتقلص أو أن صدرهم يمكن أن تنمو: فالإستيرويدات تعرضهم لمخاطر صحية. أن هدفي هو إعطاء معلومات دقيقة ليتمكن الرجال من القيام بالاختيارات الوعية."
يأتي أيستس بضيفين من مستخدمي الإستيرويدات السابقين من دمروا صحتهم بإدخالهم للإستيرويدات ويشجع المراهقين والمرأة في طرح الأسئلة والإهتمام بالمخاطر.

6- ماذا تستطيع أن تفعل

إنَّ مبدأ الفوز وتقليد الأقران يعدان من أسباب تعاطي المراهقين والمرأة للإستيرويدات. فالمرأة في بريد أن يكونوا محبوبين ومؤمنين من قبل الآخرين. لكن فقط هم الذين يمكنهم أن يقرروا مادة يدخلون إلى أجسادهم وهم الذين يمكنهم أن يشجعوا الآخرين للبقاء بعيدا عن الإستيرويدات والعقاقير الأخرى.

قل "لا" للإستيرويدات:

ليس من السهل دائماً قول لا. فقول لا للإستيرويدات والعقاقير الأخرى يتطلب شجاعة. وعلى أي حال فإن رفض استخدام الإستيرويدات أو أخذ العقاقير يظهر بأن المراهقين والمراهقة زالوا يتنمّون أنفسهم. وهم يقولون أيضاً بأنهم مسؤولون عمّا يفعلون وعمّا لا يفعلون.

الإفلاس:

لو أردت الإفلاس أو كنت تعترف من يريد الإفلاس عن استخدام الإستيرويدات أو العقاقير الأخرى فأتصل أو أكتب لـ:

- منظمة Al-anon Alateen (Al-anon Alateen)
- وأفراد عائلة متعاطي العقاقير. وعند هذه المؤسسة فروع في مدن الولايات المتحدة.

برامج علاج العقاقير أو برامج التبعي الكيميائي للعقاقير

- العائلة أو الأصدقاء.
- الخطوط الساخنة وخدمات الإحالات.
- وكالات الصحة العقلية.

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منظمات في منطقتك. (أبحث في الدليل التجاري تحت عنوان "الخدمات الاجتماعية" أو "سوء استخدام العقاقير").

المعلمو مستشارو المدارس ومستشارو سوء استخدام العقاقير وطبيبك الخاص أو متخصصوا طبيون أخر.

أخبر الآخرين عن سوء استخدام الإستيرويدات:

للمساعدة على نشر المعلومات حول أخطار سوء استخدام الإستيرويدات، نجد:

هنا بعض الخطوات:

- أطلب من أصحاب الأعمال التجارية المحلية مثل محل الغاز أو شركة الهاتف لتضمين الفواتير بمعلومات حول أخطار سوء استخدام الإستيرويدات.

- إصنع نشرات الحقائق حول سوء استخدام الإستيرويدات. ضمن أرقام هواتف والأماكن التي يمكن للناس أن يطلعوا المساعدة منها أو لمزيد من المعلومات.

- إطلب من أصحاب المراكز المحلية السماح بوضع نشرة الحقائق في أكياس الزبائن.

- إصنع ملصقات تحذر من سوء استخدام الإستيرويدات. ضمن أرقام هواتف المنظمات التي يمكن للناس طلب المساعدة منها أو لمزيد من المعلومات. إطلب من المالكين أو مدراء الأماكن المخصصة للأطفال والطفل والمراهقة وضع ملصقات التثقيفية. جرب مراكز الاستجمام ومولات الموسيقى ومطاعم السحر وقاعات السينما والأسواق المركزية وصيغة الشباب.

- إكتب رسالة حول سوء استخدام الإستيرويدات إلى المحرر الإجتماعي لصحيفتك المحلية.
استمتع بحياة خالية من العقاقير:

يعد المظهر الجيد والشعور بالارتياح من أهم أسباب تجنب استخدام الإستيرويدات والعقاقير الأخرى. إن الملايين من الأطفال والمراهقين والمراهقات في الولايات المتحدة يبحثون عن استخدام الإستيرويدات والمواد الضارة الأخرى. فهم يعلمون أن استخدام العقاقير لا يحل المشاكل ولا يضيف أي شيء إلى حياتهم.

هناك طرق كثيرة للتمتع بالحياة. فعلى سبيل المثال تعلم مهارة جديدة يمكن أن يكون متعة وأخذ دروس يمكن أن يساعد على بناء المهارة والثقة بالنفس. كذلك تعلم طرق الحوار وأخذ دروس في الكاراتيه أو التزلج على الثلج أو التدحرج على العجلات والتزلج على الثلج أو الماء والتزلج أو إخذ دور في مسرحيّة ما قد تكون من البديل الجيد لإستخدام العقاقير. إن الرياضة بشكل عام مثل التنس وكرة الطائرة، وكرة القدم وكرة السلة والبيسبول والهويكي والعاب القوى الميدانية تزودنا بالصحة والسعادة في نفس الوقت.

يعتبر مبدأ التطور مكافئًا وممتعًا أيضا. فالعمل التطوعي متوفر في أغلب الأحيان في المستشفيات ومراكز الرعاية اليومية والجمعيات الخيرية والمرافق الطبية ودور العجزة. أيضاً يتعلم المتطوعون الناس القراءة بشكل عام وقراءة على ذوي الاحتياجات الخاصة من لديهم مشاكل بصرية.

إن تجميع الصحيفة المحلية للحي بعد طريقة ملائمة لإبقاء حيّانك الحاليين على إطلاع بما يحدث، صوفيا ويلر في التاسعة من جبل لبنان بولاية بينسلفانيا، كان لديها ركن لبيع شراب الليمون في نهاية الشارع. تعرّفت على الكثير من الجيران بهذه الطريقة. تقول"سننمت من بيع الليمون للكي ما زلت أريد جمع المال ومساعدة الناس على التعرف على بعضهم البعض.

لذا نُشأت في عام 1996 صحيفة محلية للحي. وبعد عام كان لديها أربعين مشتركًا رسميًا. تصدر صحفيتها ستة أعداد في السنة وتتضمن أقسامًا مثل الأخبار المحلية والرياضة والمجلات الهزلية والشعر والمطافئ والاستطلاعات الرأي والإعلانات.
يوضّح مايكل أتردو الإبن البالغ من العمر أحد عشر ربيعاً فكرته المربحة. يقول "كانت عندي هذه الفكرة حيث يمكن للأطفال أن يجلبوا أغراضهم وبيعها ومن ثمّ جني بعض المال." أصبحت فكرة مايكل مصدر رزق بالنسبة للأطفال حيث يوجد الآن سوق السابعة إلى الحادية عشر. أكمل في العام الأول أكثر من أربعين شابًا فصولًا تدريبية ثم دفع كل واحد منهم دولارين لاستئجار كشك في منتزه محلي ليومنا سبت واحد من كل شهر. وكل يوم سبت يكسب كل شخص منهم ما بين عشرة إلى السبعين دولاراً. فهم يبيعون المثلجات وحلوى القطن وبعض الصخور المطلية والمجوهرات وأقلام الرصاص الخاصة بالمصممين وكتب مستعملة والعب وشراب الليمون.

يمكن لمجموعات دعم الأطفال في المدارس أن تساعد الأولاد على المناقشة والتعامل مع القضايا والقرارات الخاصة بالحياة اليومية. فهم يعرضون أيضًا نشاطات ممتعة ويرفعون مستوى الوعي الثقافي أحيانًا. إن البرامج والمجموعات المستمرة (ما بعد المدرسة) مثل النوادي الأمريكية للبنات والأولاد والكشافين والكشافات قد توفر برامج مثل هذه. فالاشتراك بمجموعات مماثلة تعد طريقة رائعة لمقابلة الأصدقاء الجدد والمشاركة في نشاطات حماسية.

تعد برامج قيادة الأقران وتدخلات الإرشاد للأقران في مدرستك أو مركزك الاجتماعي طريقة أخرى لإلقاء بالناس ومساعدتهم. تساعد هذه برامج الشباب كيفية التحدث مع الجمهور وتنظيم المهام والتحدث مع الأطفال والبالغين وإدارة لقاءات المجموعات. في بعض الأحيان يتوجب على هؤلاء القادة توجيه خطاب من خلال المؤتمرات واللقاءات أو من خلال النشاطات المشتركة لمنع استخدام العقاقير. إن برامج التدخل الإرشادي يتضمن هذه الفئة من الشباب الذين يساعدون أقرانهم من خلال الجلسات ووجهًا لوجه في حديث ودي وغير رسمي أو من خلال الإجابة على خط هاتف ساخن.

الحلول:

يتطلب بناء الجسم وتدريب جهديًا شاقًا ووقتًا كافياً للنمو. ويتطلب بناء نجم رياضي أكثر من مجرد عضلات وقوة. إن الكفاح الرياضية تركز على عناصر مثل
القوة والتحمل والمهارة وتوقظ الذهن. وتعتمد أيضاً على القدرات الموروثة والحية، وعنهض الجسم وقتاً كافياً للراحة والنفس الشعري للأداء الشامل. فقد تمكن الملايين من إنجاز هذا التفوق الرياضي بدون استخدام أي ستيرويدات خطرة أو أي عقاقير أخرى.

تدريب:

يساعد المدربين الرياضيين والرياضيين خلال تدريباتهم في رياضة معينة، وإيجاد التوزين الصحيح للتدريب أمر ضروري. أما فرط التدريب فيمكن له أن يؤدي إلى الإعفاء والإصابات. ويعلم هؤلاء المدربين أن مزج التدريبات الهوائية وتدريبات القوة مع تكرار التمارين والحصول على وقت كافٍ للراحة تعد أفضل النصائح.

بعد التدريب الصحيح عنصر ضروري لأي رياضة. ويمكن للرياضة أن تكون متعة وحرية مليئة بالذهن، وذلك من خلال التكيف العقلي - العضلي المناسب.
كما يمكن لهؤلاء المدربين أن يساعدوا بتحسين الحالة الذهنية للمتدرّب. فالعديد منهم يستخدم أربع طرق هي: الصورة الإيجابية وتحديد الهدف والتدريب على الاسترخاء والمثابرة على التدريب.

الصورة الإيجابية. تتضمن هذه الطريقة التنفس بعمق وتصوّر الحدث الرياضي القادم في مخيلتك حيث "ترى" نفسك تعرّب خط النهاية أو تسجل رمية حرة ناجحة.

تحديد الهدف. أولاً تعريف الهدف ومن ثم استعراض الخطوات التي نحتاجها للوصول إلى ذلك الهدف. يمر الرياضي بتلك الخطوات واحدة ثور الأخرى حتى يقترب أكثر فأكثر نحو الهدف. وعند الوصول الى الهدف يحدد هدفاً آخر لإنجازه.

التدريب على الاسترخاء. تعلمنا هذه الطريقة كيفية إرخاء العضلة والمساعدة على التركيز.

المثابرة على التدريب. تعلمنا هذه الطريقة كيفية السيطرة على الغضب والتفكير بطريقة إيجابية وتحمل الخوف والرفض.

قصة ميل:

بدأ ميل في تعلم السباحة في الثالثة من العمر بالجمعية المحلية للشبان المسيحيين (YMCA) وقاد فاز بالعديد من السباقات خلال مراحل عمره. يقول:

"لم ينمو حجمي مطلقا ما بين سن الثانية عشر والثالثة عشر، في وقت الذي كبر بعض منافسيي حوالي الخمس بوصات. ولم أربح أي سباق لعدة عام كامل وأننا استقرار تلك الزريادة المهمة في النمو الشئ الذي كان من الصعب جدا تقبله: ولكن لحسن الحظ كان لدي مهارات ممتازة ومدرب عظيم والذي أخبرني بأن السباحة ما هي إلا تحسين في الأداء أكثر من فوز بسباق. وكوني موهوبًا ليس إلا جزءا من المعاناة لدى الرياضي. فنحن نحتاج إلى عزيمة والتدريب جيد وعائلة تدعمك وتحتاج أيضا إلى شعورك الخاص بقيمة نفسك والأمن وكذلك نحتاج لبعض الحظ. وبالنسبة لي كان عندي كل المكونات.

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واصل ميل السباحة. وأجتهد أيضاً في دراسته حتى تم تكريمه بالمدرسة. ذهب الرياضي الموهوب إلى أمل دورة ألعاب أولمبية في عام 1988م لكنه لم يفز بأي ميدالية.

يتذكر قائلاً " كنت أرتد من الرهبة وتملكني الخوف الشديد حتى الشلل".

ما زال يثق ميل بنفسه فلم يتجه إلى الإستيرويدات أو العقاقير الأخرى. وبدلاً من ذلك، وضع أهدافاً جديدة له. يقول: "قلت بأنه يجب علي أن أحسن أدائي اليومي بقدر ضئيل كخطى الرضيع" وخلال الأربع سنوات القادمة سأشارك مجدداً في الألعاب الأولمبية.".

حافظ ميل على وعده لنفسه. وفي صيف أولمبيات عام 1992م ببرشلونة في إسبانيا كرس كل تدريبياته الذهنية والرياضية لإنجاز ذلك العمل. والنتائج: فاز بذهبيتي سباحة وسجل رقماً عالمياً قياسياً جديداً في سباحة الفراشة لـ200متر.
ينصح بطل السباحة المراهقين والمراهقات قائلاً: "لو كان هذا تحدياً فتسابقوا عليه ولا تشيعوا بوجوهكم منه خجلاً فلن يكون للمرء أي موقف آخر نحو الحياة."
أسئلة وحوار

1. يصعب في أغلب الأحيان الحصول على مساعدة لمستخدمي الإستيرويدات. علئ؟
2. لو ساورك الشك بأن أحد أصدقائك من مستخدمي الإستيرويدات، ماذًا تفعل؟
3. ماذًا ستفعل لو اكتشفت بأن صديقاً كان بيع الإستيرويدات؟
4. كم تعرف من الأطفال المستخدمي أو من سبق لهم استخدام الإستيرويدات؟ كيف تشعر
حالياً تجربتهم؟
5. لو طلب منك شخصاً استخدام الإستيرويدات، أي أسلوب تفضل يمكن لك أن ترفض طلبه به؟ وهل تدربت عليه؟
6. هل عرض عليك شخص ما استخدام الإستيرويدات؟ لو كانت الإجابة بنعم، كيف
عالجت الموقف؟ والآن وبعد قراءتك لهذا الكتاب، هل لك رأي مختلف؟
7. لو وجد شخص يبيع الإستيرويدات للمراهقين، هل يجب أن ينال ذلك الشخص عقوبة
أكبر من الشخص ما الذي يبيع إلى البالغين؟
8. ماذًا تحب أن تفعل للوصول إلى مستوى عالي بشكل طبيعي؟ فالعديد من الأطفال
يحبون السباحة والبعض الآخر يحبون لعب كرة السلة أو البيسبول، أو كرة القدم أو التنس
وبعضهم يحبون رياضة التزلج أو الكتابة أو الرسم أو التلوين.
9. بأي طرق أخرى يمكن لمجتمعك أن يثقّف الناس بحقيقة الإستيرويدات؟
10. هل تعتقد أن جميع المدارس يجب أن يكون لديها برامج ومعلومات حول العقاقير
لتشريحة الرياضيين والرياضيات؟ علئ الإجابة.
المسرد

مرض نقص المناعة المكتسبة (الأيدز): يعد مرض مدمراً لنظام المناعة بجسم الإنسان. فهو يضعف قدرة الجسم على مكافحة البكتيريا والفيروسات المعدية. وحتى الآن يعتبر سبب هذا المرض الأيدز مجهولاً.

المرض: الشخص الذي يعتمد على مواد كيميائية مصنعة.
الاستيرويدات البنائية: منشطات بنائية صناعية تعمل على زيادة الحجم وقوّة العضلة المساعدة.

المدمن: الشخص الذي يعتمد على مواد كيميائية مصنعة.

المتضخم: زيادة الكتلة العضلية من خلال استخدام الاستيرويدات.
الكرويبيدرات: صنف من الغذاء يتضمن السكريات والنشا. وقد تتضمن السكريات مصدر الطاقة الرئيسي للحيوانات.

العلاج الكيميائي: ويفترض أنه علاج بالعقاقير تستخدَم لتحسين الإكتئاب.

الكربيوستيرويدز: منشطات صناعية تستخدَم لمعالجة بعض المشاكل الصحية.
الفئات: فترة ثمانية إلى عام متوسطة من الاستخدام المتواصل للاستيرويدات.

النفسي: بعد أن يتغير الجسم فترة تستخدَم لتحسين الصحة.
التخدير: تعزيرات عامي لاستخدام المنتجات لتحسين الأداء الرياضي.

الهورمونات: مواد كيميائية تكسر بشكل طبيعي عند الإنسان حيث تنظم الوظائف المختلفة في الجسم مثل النمو العام للجسم ونمو الأعضاء التناسلية.

فيروس نقص المناعة عند الإنسان (إتش آي في): الفيروس الذي يعتبر من قبل العديد من الباحثين أنه المسبب الرئيسي لمرض الأيدز.

الحقن: استخدم الألكوستيرويدات داخل الجسم.

العسير: تعزيرات عامي يوصف به الشخص الذي يستخدَم الاستيرويدات.
الجرعات الهاللوتينغ: استخدام كميات كبيرة من الاستيرويدات.

الضيقة: النقطة التي لم يعد المنشط أو أي نوع من أنواع الاستيرويدات المعينة تعمل بالطريقة التي كانت تعمل بها سابقاً.

الوصفة الطبية: الدواء الذي يباع بشكل أوامير طبيب مكتوبة.

غضب الاستيرويدات: تعزيرات عامي لحالات واضحة الغضب الذي لا يمكن السيطرة عليه حالات الإحباط، والحالات القبلية التي تنتج عن استخدم الاستيرويدات البنائية.
"رويدر": تعزيرات عامي لاستخدام الاستيرويدات البنائية في محاولة لتحسين المظهر العام.
فقط: كما توجد بعض المصطلحات الأخرى لرويدر مثل العصار وراكب البهجة.

الطلقة: تعزيرات عامي لاستخدام الاستيرويدات بحذر وبدون إنتظام.
الนอกديس أو التجميع: أيضاً تعزيرات عامي لاستخدام عدد عقاقير متارة في نفس الوقت.

العصر: غير قادر على الإنياب أبداً.

الاستيرويدات: مواد كيميائيه مسؤولة عن تنظيم الوظائف المختلفة في جسم الإنسان كالنمو.
الهورمونات: أحد أنواع الإستيرويدات.
الصناعي: هرمون مصنّع من مواد كيميائية داخل المختبر.
التضاعل: عملية إنقاص لإستخدام الإستيرويدات ببطئ.
الأنسجة: أوتار العضلة التي تربط العضلات في جسم الإنسان بالعظام.
تيستوستيرون: هرمون مسؤول عن نمو أجسام المراهقين.
الإنسحاب: عملية تخليص الجسم من العقاقير تدريجياً.