STEROIDS & IMAGE ENHANCING DRUGS

EDUCATIONAL TOOLKIT FOR YOUNG PEOPLE (11-16 YEARS)
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ACKNOWLEDGMENTS

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Film Clips: Hide Productions

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Introduction

Human beings have been transfixed with the acquisition of body and physical perfection for thousands of years. Whether it is an increase in muscle mass and definition, the lightening and darkening of skin pigmentation, weight loss, hair follicle removal/replacement and cosmetic implantation, as humans we have designed and used techniques to temporarily or permanently alter almost every part of the body. Whilst methods such as regular exercise and maintaining a balanced healthy diet are part of our daily routine and are considered relatively safe, others are more extreme in nature and associated with a lengthy list of potential side effects and risks. The use of Steroids and Image Enhancing Drugs (SIEDs) are such methods. Whilst more commonly associated with body building and athletics, the increase in production and availability of SIEDs over recent decades has meant that use has evolved amongst men and women of all ages and backgrounds.

What is an Image Enhancing Drug?

The term Image Enhancing Drug refers to any substances (licit or illicit) which may be taken by an individual to perceptually enhance the way in which they physically look. As such these may include substances such as diet/fat-loss pills, injectable and oral tanning agents, Botox and collagen fillers.

What is an Anabolic and Androgenic Steroid (AAS)?

AAS are synthetically produced versions of the naturally occurring male sex hormone testosterone. The term “anabolic” refers to muscle-building whilst “androgenic” refers to increased male sexual characteristics; “steroids” refer to the class of drug. Whilst also used as Image Enhancing Drugs, the anabolic features possessed by steroids often mean that they are used by many as performance enhancing drugs.

Over the last few years growing concerns have emerged surrounding the young age at which individuals are exposed to SIEDs, both as a user or through secondary exposure to such substances. Current needle and syringe programme (NSP) activity data would suggest that approximately 25% of SIED users accessing NSP services in Wales are under 25 years of age. Those who use SIEDs during the years of physical and neurological development (ages 11-25 years) may be at risk of complications due to disruption of natural growth and hormonal imbalance. Additionally those who inject substances of any kind are at significant increased risk of acquiring a blood borne virus such as Hepatitis B, Hepatitis C and HIV, or a bacterial infection.

Training is currently available to individuals working with SIED users through the launch of an accredited training programme developed by Public Health Wales (PHW). Its core aim is to raise knowledge and awareness surrounding SIEDs and related issues, and enhance professionals’ ability to provide harm reduction advice when needed. However, it has been recognised that very little is available in the form of education and awareness raising packages targeted towards young people which have been designed to delay and/or prevent initiation of the use of SIEDs.

As such PHW have been commissioned by Welsh Government (WG) to develop this toolkit designed to be delivered to young people with the aim of providing fact based information surrounding SIEDs and potential health harms associated with use.
This toolkit has been designed as a series of workshops intended to increase young peoples' (key stage 3-4) knowledge and understanding of Steroids and Image Enhancing Drugs and the associated risks – see ‘Aims of Toolkit’. Each workshop contains a number of interactive activities designed to allow learners to explore the subject matter, strengthening their understanding and ability to make informed choices in the future.

Each workshop has been designed so that they may be delivered in a broad range of settings to young people who may benefit from an increased general awareness of SIEDs, or even those requiring more specific and targeted information. As such it is advised that:

- The first session “SIEDs Awareness” is an opening general awareness session to individuals who may have little to limited knowledge of SIEDs.
- The second and third sessions are delivered to those where more in depth discussion surrounding motivations of use (particularly body image) and risk and complications is required.
- The fourth session is intended to be delivered to those specifically at risk of exposure to SIEDs use, and has been tailored to provide specific information surrounding the harms associated with use.

This toolkit includes lesson plans and delivery notes with all the information required for the effective delivery. As such, the contents may be delivered in both educational and non-educational settings e.g. youth clubs, sporting organisations.

Each workshop will require the use of additional resources such as picture cards, handouts, factsheets, and film clips. All resources can be found at [www.publichealthwales.org/SIEDs](http://www.publichealthwales.org/SIEDs).

**IMPORTANT**

Should any individual be identified as an active user of SIEDs or as an individual who has committed to use but not otherwise engaged please use the following contacts to obtain directories to your nearest young people’s substance misuse service for further advice:

- In Wales: [www.dan247.org.uk](http://www.dan247.org.uk) or call 0808 808 2234
- In England: [www.talktofrank.com](http://www.talktofrank.com) or call 0300 123 6600
- In Scotland: [www.scottishdrugservices.com](http://www.scottishdrugservices.com) or call 0141 221 1175
The aim of this toolkit is to:

1. Educate learners about the risks and harms associated with Steroid and Image Enhancing Drugs (SIEDs), and to dispel common myths associated with such substances.
   - **Learning Objective:** Name two risks associated with using SIEDs.

2. Increase understanding of the motivations associated with the use of SIEDs, and the types of people who use them from athletes to the medically prescribed.
   - **Learning Objective:** Identify three motivations for using SIEDs.
   - Recognise (where possible) alternatives to using SIEDs.

3. Inform individuals of how SIEDs work, and for learners to recognise the potential effects they have upon natural hormone production and function.
   - **Learning Objective:** Clearly define a Steroid and Image Enhancing Drug.

4. Make learners aware that all injecting regardless of the substance carries a significant risk of infection and other damage, and the types of infection that may be transmitted through injecting practice.
   - **Learning Objective:** Identify two risks associated with injecting any substance.

5. Ensure learners and educators discuss and think about the accuracy of information available to the public that provides advice and guidance surrounding healthcare and lifestyle messages, and the reliability of such information.
   - **Learning Objective:** Recognise why information found on the internet is not always 100% reliable.
   - Identifying three reliable sources of information.

6. Increase understanding of issues relating to the SIEDs market and culture, and recognise the risks associated with the underground SIEDs market.
   - **Learning Objective:** Name three risks associated with underground laboratory sourced SIEDs.

7. Discuss and be aware of issues relating to body image and the extreme measures some people take to alter their image.
   - **Learning Objective:** Recognise sources of body image pressures on young people.

**CURRICULUM LINKS:**

For links to PSE Framework and literacy across the curriculum, please see Appendix 11.
INSTRUCTIONS FOR FACILITATORS

SETTING UP A WORKSHOP

Each workshop has been designed to run for up to 1 hour and is intended to be delivered to a minimum of 12 young people. If you have fewer participants than this you may want to modify the session structure as appropriate. All exercises and interactive activities may be delivered to large groups (more than 20 participants) but facilitators should be mindful of the time required for gathering exercise feedback.

For each workshop you will find a lesson plan (outlining the outcomes, resources required for the session and running plan) and accompanying notes. The notes provided will give you enough information to support and complete each activity where needed.

DELIVERY STYLE

Due to the variety of settings in which the delivery of this toolkit is intended, each workshop has been designed to enable flexibility in delivery to suit your audience. Please feel free to start each workshop with an ice-breaker of your choice, or add further interaction/energy where necessary. In addition, each workshop contains an optional ‘break’ should you require running a shorter session, or run out of time.

SENSITIVITY

It is recognised that some young people may feel uncomfortable or may be prohibited culturally from discussing topics relating to body image with the opposite sex. As such each workshop may be delivered as mixed or split gendered groups.

Discussions surrounding Steroids and Image Enhancing Drugs will require maturity and a respect for other people’s views and opinions. The workshops within this toolkit are intended to increase awareness, and enhance young people’s knowledge surrounding the motivations which drive individuals towards the use of such substances. Some activities/discussions may lead to some young people expressing prejudices and negative stereotypes.

It would therefore be beneficial to spend some time creating the right environment to keep all participants and facilitators safe. A useful way to generate an open learning environment, promote positive behaviour, and provide a safe space for learners to feel comfortable enough to express opinion is to introduce a working contract or ground rules. Ideally these would be generated alongside the assistance of the group participants, and should communicate expected standards of behaviour and interaction and ensure safety and respect.
EXAMPLE GROUND RULES:

- **Respect others:** you will hear ideas and opinions that may be different to yours, new to you or which you disagree with. As you participate and interact, try and participate without judgment of others. This may involve being mindful of not only your words but body language too.

- **Be open and honest:** There is no such thing as a ‘silly’ question. Ask questions without fear of judgment, but feel free to speak to the group facilitator privately if you do not feel confident asking a question publically.

- **Respect confidentiality:** Individuals should be encouraged to apply the learning materials to aspects of their own lives and real life scenarios. However it should be noted that whilst sharing personal stories individuals should refrain from using real names and respect the confidentiality of others.

- **Contribute fairly:** Throughout the workshop you are encouraged to express your ideas, current knowledge, and opinions. Whilst doing so please take it in turns to contribute in order to help create a safe space where everyone is encouraged and feels comfortable to speak. If you feel uncomfortable during various discussions you are not obligated to speak, and may sit and listen to those around you.

**IMPORTANT**

Should any individual be identified as an active user of SIEDs or as an individual who has committed to use but not otherwise engaged please use the following contacts to obtain directories to your nearest young people’s substance misuse service for further advice:

In Wales: [www.dan24/7.org.uk](http://www.dan24/7.org.uk) or call 0808 808 2234

In England: [www.talktofrank.com](http://www.talktofrank.com) or call 0300 123 6600

In Scotland: [www.scottishdrugservices.com](http://www.scottishdrugservices.com) or call 0141 221 1175
**Workshop 1: SIEDs – Awareness**

**Session Length:** 60 minutes.

**Session Objectives:** Toolkit core aims 1, 2, 3, 4, and 5 (please refer to Aims of the Toolkit).

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<tr>
<td><strong>Introduction</strong></td>
<td>1. Prepare a flipchart by drawing an outline of the human body. Explain that ‘throughout history humans have engaged in various activities designed to alter body image’. Using the pre-prepared flipchart, quickly ‘board blast’ the parts of of the body most commonly altered, then ask for actions known to them for achieving this. Add Steroids and Image Enhancing Drugs (SIEDs) to the board if not raised. State that these will be the focus for the remainder of the session.</td>
<td>5 mins</td>
<td>Flipchart and paper or writing board</td>
<td><strong>Examples of parts of body altered:</strong> muscles, skin tone, breast size, weight/body shape etc.</td>
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<td>2. Briefly discuss with the group their understanding of a SIED, give the definition as provided and draw upon points such as the effects, and who might use them. Emphasise that a wide range of people now use SIEDs including men, women and people of all ages, but like all other substances use doesn’t come without risks/complications.</td>
<td>5 mins</td>
<td>SIEDs Awareness Quiz - see Appendix 1/ Handout 1</td>
<td><strong>Examples of methods of achieving this:</strong> attending a gym, diet, face packs, chemical peels, push-up bras, steroid use, cosmetic surgery etc.</td>
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<td>3. Divide the group into smaller teams (4-5 participants per team). Provide each group with a copy of the SIEDs awareness quiz and ask them to complete as a team. Feedback the answers of the quiz (see Appendix 2) and record the scores for each group on the writing board. Give the quiz answer sheet to all participants for reference later.</td>
<td>20 mins</td>
<td>SIEDs Awareness Quiz Answers - see Appendix 2/ Handout 2 (one per participant)</td>
<td><strong>What are Anabolic and Androgenic Steroids?</strong> Anabolic and Androgenic Steroids are man-made versions of the male hormone testosterone. When taken they increase the rate of muscle growth and causes the development of male characteristics e.g. Facial/ bodily hair.</td>
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<td>4. Divide the group into three subgroups, assigning each group the role of ‘Health Professional’, ‘Concerned Parent/Friend’ and ‘Pro Steroid/Image Enhancing Drug Friend’.</td>
<td>20 mins in total for whole of Part 2</td>
<td>Motivations, Risks and Complications Sheet - see Appendix 3 Handout 3</td>
<td><strong>What is an Image Enhancing Drug?</strong> The term Image Enhancing Drug refers to any drug (legal or illegal) which is taken to improve the way in which an individual physically looks. These may include substances such as fat-loss pills, injectable and oral tanning products, Botox and collagen fillers.</td>
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<td>5. Provide each group with the appropriate ‘Motivations, Risk, and Complications’ crib sheet.</td>
<td>Paper</td>
<td>Pens</td>
<td><strong>Tip:</strong> Whilst there are a number of examples on the Motivation, Risk and Complications activity cards (Appendix 3) you may want to assist some of your learners to think about and generate their own. Please use the examples on the next page as a prompt if any group has difficulties generating additional points.</td>
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<td><strong>Part 2 (Cont.)</strong></td>
<td><strong>6. Explain: “[Insert Name] has approached you and wants your advice. She/he is thinking about using SIEDs but wants as much information as possible before making a decision”</strong>.</td>
<td><strong>Motivations, Risks and Complications</strong>&lt;br&gt;&lt;br&gt;Sheet - see Appendix 3/Handout 3</td>
<td><strong>Motivations for Use:</strong>&lt;br&gt;Career enhancement (careers reliant on strength/image), enhance physical appearance (lose/gain weight, change skin colour), attract attention of others, peer pressure/social influence, reduce bullying, intimidate others, protection from others.</td>
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<td><strong>7. From the perspective of their assigned character ask each group to think of and write down as many additional reasons as possible to add to the debate - participants may refer back to the earlier quiz.</strong></td>
<td></td>
<td><strong>Physical Health Risks:</strong>&lt;br&gt;Male pattern baldness, body hair growth, liver disease/cancers, increased blood pressure, thrombosis (blood clotting), stroke, enlargement of heart (may lead to failure).</td>
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<td><strong>8. Ask each group to feedback the points written on their crib sheet. During feedback probe further by asking questions such as:</strong>&lt;br&gt;• Is that likely to happen in the short or long term?&lt;br&gt;• Who else will be affected and how?&lt;br&gt;• What else could result from that benefit/complication e.g. loss of income, secondary health problems?</td>
<td></td>
<td><strong>Psychological Health Risks:</strong>&lt;br&gt;Hormone imbalance following use may lead to depression (sometimes severe), aggression (anecdotal report only).</td>
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<td><strong>9. Following feedback ask the group to make a decision as to what [Insert Name] should do and whose characters information would be the most reliable?</strong></td>
<td></td>
<td><strong>Social Complications:</strong>&lt;br&gt;Relationship problems (associated with mood fluctuations, moral friction i.e. it’s considered cheating, other listed complications), inability in conceiving children, work disciplinary if caught (e.g. Police, Army), stigma/change in reputation (not necessarily negative).</td>
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<tr>
<td><strong>Summary</strong></td>
<td><strong>10. Play film clip 1 - SIEDs Awareness</strong></td>
<td><strong>5 mins</strong></td>
<td><strong>Film clip 1 - SIEDs Awareness</strong></td>
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<td></td>
<td><strong>11. Ask the group to state/summarise the main points they feel the film was trying to portray.....</strong></td>
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<tr>
<td><strong>Reflection</strong></td>
<td><strong>12. Ask each young person to write on the flipchart/writing board two new things they have learnt today.</strong></td>
<td><strong>5 mins</strong></td>
<td><strong>Flipchart/writing board</strong>&lt;br&gt;Pens</td>
<td><strong>Tip:</strong>&lt;br&gt;The task can be completed as an individual activity if preferred.</td>
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Please visit [www.publichealthwales.org/SIEDs](http://www.publichealthwales.org/SIEDs) for printable handouts, videos and other resources.
**Session Length:** 60 minutes.

**Session Objectives:** Toolkit core aims 2, 3 and 7 (please refer to Aims of the Toolkit).

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<tr>
<td>Introduction</td>
<td>1. Write the word “Steroid” and “Image Enhancing Drugs” on the board and ask the young people to board blast as many words/phrases as possible that they associate with them. 2. Once you have filled the board ask the participants to generate a definition of these substances - provide definitions as provided but emphasise that steroids are also viewed as image enhancing drugs.</td>
<td>5 mins</td>
<td>Flipchart Flipchart paper Markers Pre-prepared flipchart with provided answers - see Appendix 4</td>
<td>Tip: Pre-prepare a flipchart with the provided examples found in Appendix 4. Should your group have difficulty generating words associated with Steroids and Image Enhancing Drugs display this at the end of the exercise. <strong>What are Anabolic and Androgenic Steroids?</strong> Anabolic and androgenic steroids are “man made” versions of the male hormone testosterone which when taken increases muscle growth (anabolic) and causes the development of male characteristics (androgenic) e.g. Facial/body hair. <strong>What is an Image Enhancing Drug?</strong> An image enhancing drug is any substance which is believed to improve physical appearance. This may include tanning products (injectable or tablets), fat loss tablets, and skin treatments e.g. botox, and collagen fillers.</td>
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<tr>
<td>Part 1</td>
<td>3. Create 4 work stations with a piece of pre-prepared flip chart paper, marker pen and one of the ‘Motivations Case Studies’ scenarios. 4. Split the group into 4 subgroups and ask the participants to rotate between workstations writing down as many of the following as they can: • motivating factors that may lead the workstations character to use SIEDs • possible consequences of use • anything the character could do differently.</td>
<td>20 mins</td>
<td>Flipchart paper and Marker pens Motivations Case Studies - see Appendix 5/Handout 4</td>
<td>Pre-prepare four pieces of flipchart paper (one for each case study) by writing characters name at top and the following headings: • <strong>Motivations</strong> • <strong>Consequences</strong> • <strong>What could they do differently?</strong> <strong>Tip:</strong> You may want to work through one of the Case Studies as a large group to provide an example of how the task should be completed.</td>
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<td>Part</td>
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<td><strong>Part 1 (Cont.)</strong></td>
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<td>5.</td>
<td>Provide time to complete the exercise and gather feedback one case study at a time.</td>
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<td>Motivational Case Studies - Guidance Sheet - see Appendix 6</td>
<td>Tip: Please use the Motivations Case Study Sheet (see Appendix 6) for answers and information during feedback - prompts and examples may also be provided to guide learners in completing the task.</td>
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<td>6.</td>
<td>Now lead a brief discussion on the following questions:</td>
<td>10 mins</td>
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<td><strong>Tip:</strong> Ask the participants to name a male and female celebrity that has influence upon young people at present - this will aid discussion later.</td>
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<td></td>
<td>• How much external pressure is there on young people surrounding body image and looking good?</td>
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<td></td>
<td>• Who are the biggest influences on young people when it comes to body image e.g. celebrity culture, peers, family?</td>
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<td></td>
<td>• How much do young people need to worry about what others think? Why?</td>
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<td><strong>Part 2</strong></td>
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<td>7.</td>
<td>Split into groups of 3-4 and hand out the 'Real/Not-Real Quiz' sheets. Explain: “The search for body perfection is nothing new and has been part of human culture across the world for a long time. The sheet in front of you contains historic examples of rituals and activities thought to enhance/improve body image, but some are fake and it is your job to guess the real image enhancing activities.”</td>
<td>15 mins</td>
<td>Pens</td>
<td>Real/Not Real Quiz sheet - see Appendix 7/Handout 5 Real/Not Real Quiz Answers see Appendix 8</td>
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<td>8.</td>
<td>Gather feedback and provide answers.</td>
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<td>9.</td>
<td>Now ask:</td>
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<td></td>
<td>• Why would people participate in any of these activities?</td>
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<td></td>
<td>• Would people participate in any of these activities now if [insert celebrity icon] was doing it? Why?</td>
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<tr>
<td><strong>Summary</strong></td>
<td></td>
<td>5 mins</td>
<td>Film clip 2 – SIEDs Motivations for Use</td>
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<tr>
<td><strong>Reflection</strong></td>
<td></td>
<td>5 mins</td>
<td>Pens</td>
<td>Paper</td>
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<tr>
<td>11.</td>
<td>On pieces of paper ask the participants to write down two reasons why someone may use SIEDs and one thing they could do/think about differently to delay use. Feedback.</td>
<td>5 mins</td>
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Please visit [www.publichealthwales.org/SIEDs](http://www.publichealthwales.org/SIEDs) for printable handouts, videos and other resources.
### Workshop 3

**Session Length:** 60 minutes.

**Session Objectives:** Toolkit core aims 1, 3, and 4 (please refer to Aims of the Toolkit).

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| **Introduction** | 1. In pairs ask the young people to quickly discuss what changes happen during puberty, and at what age they believe the body stops developing.  
2. Feedback - write responses on the board under the following categories ‘Physical Changes’ ‘Psychological Changes’ and add missing changes if necessary. | 10 mins | Flipchart and paper or writing board  
Marker pens | **Boys:** development of pubic hair, facial hair, testicular development, development of sweat glands, increase of hormone production (testosterone) which leads to increase in physical growth (height and muscular) - this however may also lead to acne and mood swings.  
**Important:** natural testosterone levels will be at their highest, and arguably much higher than needed during adolescence.  
**Girls:** development of pubic hair, breasts, maturity of sexual organs menstrual cycles (periods), begin increase in physical growth, development of sweat glands, increase in hormone production (oestrogen and testosterone) - may also lead to acne and mood swings.  
Most physical and psychological development is complete in both boys and girls at ages 18-19 years old. However, hormonal systems won’t settle down completely until ages 22-25. |
| **Part 1** | 3. Split the class into 5 groups giving each group one of the ‘Organ Cards’ (Heart, Liver, Brain, Reproductive System, and Skin).  
4. Explain - “You have just finished developing a new ‘wonder’ drug which makes any user strong and burn excess fat. The only catch is that the main ingredient, Awesome-ozole, has never been scientifically tested in humans. A number of people who have used Awesome-ozole and no other drugs have recently been admitted to hospital due to serious health problems relating to the organ you have been given in your group.  
Your task is to create an advert for this new wonder drug describing all the benefits – but also listing the potential side effects. As such a third of the advert must be given to reporting the potential harms of Awesome-ozole”.  
Feedback. | 20 mins | Organ Cards - see Appendix 9/Handout 6  
A3 paper  
Pencils  
Colouring pens/pencils |
<table>
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<td>Part 1 (Cont.)</td>
<td>5. Inform the class “the only way this substance can be used is via injection”. Discuss risks/harms associated with injecting as a group (see information provided), asking young people if they know of anything that would increase the chances of such harms occurring. Write any main comments on the board. Now ask them to add these new risks/harms to their adverts.</td>
<td>10 mins</td>
<td></td>
<td>Regardless of the substance all injecting carries a risk of infection and other damage such as:</td>
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<td>Part 1 (Cont.)</td>
<td>6. Discuss the group’s opinion surrounding the appeal of Awesome-ozole now the side effects have been explored. Prompt by asking whether any of the side effects contradict the desired effect/motivations of use e.g. may increase confidence, but also may cause depression.</td>
<td>5 mins</td>
<td></td>
<td>1. Damage to the injection site as a result of poor injecting technique e.g. nerve and tissue damage.</td>
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<td>Part 1 (Cont.)</td>
<td>7. Explain that all the effects today for every part of the body have been reported as risk and effects associated with SIEDs use.</td>
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<td>2. Bacterial and fungal infections as a result of poor injecting technique, contaminated drug products, and sharing vials and/or reusing injecting equipment - these could lead to abscesses and in extreme cases amputation.</td>
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<td>Part 1 (Cont.)</td>
<td>8. Play film clip 3 – SIEDs Risks and Complications.</td>
<td>5 mins</td>
<td>Film clip 3 - SIEDs Risks &amp; Complications</td>
<td>3. Blood borne viruses (BBV) such as HIV, Hepatitis B and Hepatitis C as a result of sharing used injecting equipment (direct sharing) and sharing vials with others (indirect sharing).</td>
</tr>
<tr>
<td>Summary</td>
<td>9. In their pairs ask the group to reflect upon the physical and psychological health risks discussed today and the impact SIEDs could have upon the body’s natural development during puberty if taken by a 16 year old. Feedback.</td>
<td>10 mins</td>
<td>Paper Pens</td>
<td>Using SIEIDs of any kind, but particularly anabolic steroids can upset the hormonal balance and/or physical development within the body. This could cause the body to shut down natural hormone production. Therefore they are an un-necessary risk and financial cost.</td>
</tr>
</tbody>
</table>

Please visit [www.publichealthwales.org/SIEDs](http://www.publichealthwales.org/SIEDs) for printable handouts, videos and other resources.
Session Length: 60 minutes.
Session Objectives: Toolkit core aims 4, 5 and 6 (please refer to Aims of the Toolkit).

### Part 1

<table>
<thead>
<tr>
<th>How</th>
<th>Time</th>
<th>Resources</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Split the group into two subgroups and provide them with a marker pen and a piece of flipchart paper</td>
<td>10 mins</td>
<td>Flipchart paper Marker pens</td>
<td>Some examples of cost and benefits:</td>
</tr>
<tr>
<td>2. Assign each group an imaginary object (either expensive pair of trainers or electrical item). State that they really want this item and have been presented with the opportunity of buying a fake version. On their flipchart paper ask the groups to list the cost and benefits of purchasing a fake version of their imaginary object. Feedback</td>
<td></td>
<td></td>
<td>Benefits: The item is cheaper, could buy the item sooner, money left over to buy other things, reduce pressure from peers to fit in.</td>
</tr>
<tr>
<td>3. Using information from within Appendix 10 – inform the group that SIEDs can be manufactured in three different ways; Pharmaceutical Grade, Veterinary Grade, and Underground Laboratories (UGL). Write each of the three manufacturing types on the writing board. 4. Explain - “You will now see a film clip which will show a series of SIEDs which have been submitted for chemical testing. As each sample is displayed I want you to guess whether the sample is a Pharmaceutical, Veterinary or Underground grade sample.” Play film clip 4 - SIEDs Market and Culture, Pause the film between each sample displayed and discuss and record the consensus response on the board. 5. Once a decision has been made for each of the substances, play the rest of the film clip that will show the test results for each SIED they have just seen. 6. Upon the completion of the film lead a discussion around the risks of using counterfeit substances based on the information they saw in the film clip. Highlight points such as legality (criminal and athletic), dosing, toxic effects of an unknown substance, bacterial contamination.</td>
<td>5 mins</td>
<td>Sources of SIEDs script - see Appendix 10/Handout 7 Flipchart and paper or writing board Marker pens Film clip 4 - SIEDs Market and Culture</td>
<td>Tip: You may may want to read from or paraphrase the script provided in Appendix 10 - Sources of SIEDs.</td>
</tr>
<tr>
<td></td>
<td>15 mins</td>
<td></td>
<td>Risks Associated with using an Underground Lab product</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Desired outcome is not achieved.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Unexpected harmful side effects caused by unknown substance.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Bacterial infection caused by contamination of product manufactured in unsterile environment.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Criminal record for possession and use of an illegal substance - despite not knowing it was illegal.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Work disciplinary action for possession and use of an illegal substance.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Ban from sporting profession or hobby - despite use of banned substance being unknown.</td>
</tr>
</tbody>
</table>

For a shorter session please go straight to Summary and Reflection
<table>
<thead>
<tr>
<th>Part</th>
<th>How</th>
<th>Time</th>
<th>Resources</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part 2</td>
<td><strong>7. Board blast with the group all sources of information available to young people for obtaining information about substances of use and health related matters e.g. internet sites (be specific), peers, healthcare professional etc.</strong></td>
<td>15 mins</td>
<td>Flipchart and paper or writing board, Marker pens, Pens, Paper</td>
<td>Example sources of information: friends, brother/sister, parents, uncles/aunts, cousins, grandparents, teacher, youth worker, doctor, nurse, substance misuse worker, other health professional, books, magazines, television (documentaries, reality programmes, fiction), internet (video streaming, reference, social media, forums, professional organisation websites e.g. Frank, DAN 24/7, NHS Choices).</td>
</tr>
<tr>
<td></td>
<td><strong>8. Once complete split into sub groups. Ask each group to rank on paper the sources of information in order of reliability. Whilst gathering feedback ask the groups how they came to their decision e.g.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Are there benefits to the source for supplying information? e.g. financial</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>• Does the source provide you with facts or opinion?</td>
<td></td>
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<tr>
<td></td>
<td>• Will the information be in date?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Where has the source obtained the information?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>9. Discuss with the group why it would be important to gather as much reliable information as possible before making a big decision. What could go wrong if you didn’t have enough reliable information?</strong></td>
<td></td>
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</tr>
<tr>
<td>Reflection</td>
<td><strong>10. Ask the group: “Should someone still buy the fake pair of trainers/electrical items if they had the same level of risk as UGL SIEDs?”</strong></td>
<td>10 mins</td>
<td></td>
<td>Tip: This exercise can be presented as a written or verbal exercise.</td>
</tr>
<tr>
<td></td>
<td><strong>Do the potential harms of buying a fake outweigh the earlier identified benefits?” Discuss.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please visit [www.publichealthwales.org/SIEDs](http://www.publichealthwales.org/SIEDs) for printable handouts, videos and other resources.
APPENDIX 1 SIEDs QUIZ

Please circle the correct answer....

1. Anabolic and androgenic steroids are.... (Circle all that are correct)
   A) Artificially produced versions of the male hormone testosterone
   B) Substances which increase muscle growth and male characteristics
   C) Substances which strengthen bones
   D) Artificially produced versions of the female hormone oestrogen

2. An image enhancing drug is... (Circle all that are correct)
   A) A drug which helps you see better in the dark
   B) A drug that makes you hallucinate (see things that aren’t really there)
   C) Any drug which is taken to perceptually improve physical appearance

3. Anabolic steroids were first identified by extracting hormones from bulls’ testicles...
   A) True    B) False

4. Information obtained from older people e.g. Family, Sports Coaches, Gym Instructors, Doctors, Teachers is always reliable...
   A) True    B) False

5. Steroids only fill your muscles with water...
   A) True    B) False

6. The possession of anabolic steroids for personal use is illegal...
   A) True    B) False
7. A Steroid and Image Enhancing Drug can be taken through.... (Circle all that are correct)
   A) Injecting
   B) Taking a tablet
   C) Smoking
   D) Sniffing Powder

8. Anabolic steroids can be used in the treatment of medical illness and disease...
   A) True       B) False

9. Steroids and Image Enhancing drugs have a label on the packet/bottle which means you can always guarantee the contents...
   A) True       B) False

10. Anabolic and androgenic steroids can: (Circle all that are correct)
    A) Decrease the size of a male users’ penis
    B) Cause women to take on male characteristics e.g. facial hair, loss of breast tissue
    C) Cause testicles to shrink
    D) Cause testicles to get bigger

11. There are no negative side effects from taking slimming/fat loss pills...
    A) True       B) False

12. Information found on the internet is always accurate and 100% reliable...
    A) True       B) False

13. The chemical contained within Botox injections derives from a powerful neurotoxin (poison) produced by bacteria...
    A) True       B) False
1. Anabolic and androgenic steroids are....
   Anabolic and androgenic steroids are “man made” versions of the male hormone testosterone which when taken increases muscle growth (anabolic) and causes the development of male characteristics (androgenic) e.g. facial/body hair.

2. An image enhancing drug is...
   An image enhancing drug is any substance which is believed to improve physical appearance. This may include tanning products (injectable or tablets), fat loss tablets, and skin treatments e.g. botox, and collagen fillers.

3. Anabolic steroids were first created by extracting hormones from bulls’ testicles ...
   Artificial Testosterone was artificially produced for the first time in 1935 following experiments using fluid extracted from mashed-up bulls’ testicles.

4. Information obtained from older people e.g. Family, Sports Coaches, Gym Instructors, Doctors, Teachers is always reliable...
   It is always important to gather as much information as possible from a number of reliable sources before making a big decision.
   
   Extra Information - Just because one person has said something doesn’t make it true. Whilst professionals are the most reliable source it is important to recognise their area of expertise e.g. you would expect good medical advice from a doctor, but maybe not from gym instructor.

5. Steroids only fill your muscles with water...
   All anabolic steroids cause an increase in muscle production. However, some anabolic steroids cause the body to hold onto water in the muscles, giving the user a bigger/bulkier appearance.

6. The possession of anabolic steroids for personal use is illegal...
   All anabolic steroids are classified as a Class C substance. In the UK an individual will only be prosecuted for the manufacture, online/mail-order purchase, or supply of anabolic steroids.
   
   Extra Information - The maximum penalty for these offences is 14 years in prison and/or a heavy fine. Even buying for a friend can be classified as supplying steroids.

7. A Steroid and Image Enhancing Drug can be taken through....
   Steroids and Image Enhancing drugs come in a wide range of forms including, oils or water based liquids, tablets and powders. These are taken through injection (liquids and powders) or orally (tablets).
   
   Extra Information - Injecting always carries a risk of infection and other damage including the passing of blood borne viruses (HIV, Hepatitis B & Hepatitis C) if equipment is shared or re-used.
8. Anabolic steroids can be used in the treatment of medical illness and disease...
Due to their muscle building capabilities anabolic steroids have been produced to assist
in the treatment of medical illness and disease e.g. cancer, HIV, growth disorders, sexual
dysfunction.

True

9. Steroids and Image Enhancing Drugs have a label on the packet/bottle which means
you can always guarantee the contents...
Whilst the majority of SIEDs come in professional looking labelled packets and bottles a lot
are fakes, or produced in unhygienic laboratories.

False

Extra Information - There is a lot of evidence to suggest that what you think you might be
buying is not what is contained in the packet/bottle e.g. different doses, additional/different
substances, illegal substances when you thought it to be legal, or no active ingredients.

10. Anabolic and androgenic steroids can:
Steroids can stop the body’s natural production of the male sex hormone testosterone
which can cause the testicles to shrink. Introduction of extra testosterone in female users
may also result in the development of male characteristics, including facial hair, deepening
of the voice, disruptions to the menstrual cycle, and reduction in breast tissue. Whilst it is a
very common myth, steroids do not make an individual’s penis size smaller.

B & C

11. There are no negative side effects from taking slimming/fat loss pills...
Often fat loss products contain stimulant type substances e.g. caffeine and ephedrine. This
means common side effects will include feeling jittery, and being unable to sleep properly.

False

Extra Information - More severe side-effects include; increased blood pressure, difficulty
breathing, depression, nausea and vomiting, increased body temperature, loss of
consciousness and even death.

12. Information found on the internet is always accurate and 100% reliable...
Information obtained from uncontrolled websites on the internet should be taken with
cautions. Video streaming, social media and reference page websites allow anyone to post
information regardless of how accurate it is. Government and professional organisation
websites should always be used for the most accurate and reliable information.

False

13. The chemical contained within Botox injections derives from a powerful
neurotoxin (poison) produced by bacteria...
The chemical Botox comes from a neurotoxin produced by the bacteria Clostridium
Botulinum. Nicknames for this poison have included the “sausage poison” as the bacterium
was known to grow in improperly prepared meats.

True

Extra Information - Whilst the toxin is carefully controlled during cosmetic use of Botox,
side effects can include paralysis of the wrong muscle group, allergic reaction, headaches,
and flu-like symptoms.
Health Professional (Risks) - Anti-SIEDs
- Disruption to hormone balance can impair fertility, and your sex drive.
- Evidence shows that steroids can increase cholesterol levels – putting you at risk of heart disease later in life.
- Long term effects are not fully established yet for all SIEDs.
- Severe acne and growth of male breast tissue are very common side effects.

Generate other points you think your character might say using facts from the quiz and your own knowledge.

Concerned Parent/Friend (Complications) - Anti-SIEDs
- Most SIEDs are banned by sporting governing bodies, getting caught could lead to a temporary or lifetime ban.
- Using SIEDs can lead to a dependence on the substance to continually look a certain way e.g. fear of losing size/muscle mass.
- These substances are expensive to purchase.
- Many professions test and may discipline staff for the use of SIEDs (depending on policy) e.g. police force, military services.

Generate other points you think your character might say using facts from the quiz and your own knowledge.

Pro SIED use friend (motivations) - Pro-SIEDs
- Alongside a good diet and exercise plan steroids can help generate muscles quicker.
- A change in physique and appearance may improve self-confidence and self-esteem.
- Using SIEDs could change your reputation and how others see you.
- SIEDs might make you perform better than others in sport.

Generate other points you think your character might say using facts from the quiz and your own knowledge.
## APPENDIX 4
**WORDS ASSOCIATED WITH SIEDS**

<table>
<thead>
<tr>
<th>Steroids</th>
<th>Image-Enhancing Drugs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muscles</td>
<td>Botox</td>
</tr>
<tr>
<td>Strength</td>
<td>Diet pills</td>
</tr>
<tr>
<td>Body changes</td>
<td>Surgery</td>
</tr>
<tr>
<td>Big arms</td>
<td>Self-esteem</td>
</tr>
<tr>
<td>Injecting</td>
<td>Confidence</td>
</tr>
<tr>
<td>Testosterone</td>
<td>Tablets</td>
</tr>
<tr>
<td>Tablets</td>
<td>Supermodels</td>
</tr>
<tr>
<td>Bodybuilders</td>
<td>Celebrities</td>
</tr>
<tr>
<td>Athletes</td>
<td>Tanning products</td>
</tr>
<tr>
<td>Weight training</td>
<td>Injecting</td>
</tr>
<tr>
<td>Health risks</td>
<td>Steroids</td>
</tr>
<tr>
<td>Improve image</td>
<td>Can go wrong</td>
</tr>
</tbody>
</table>
Case Study 1 - Tom
Tom is 21 and has recently booked a **holiday** with his friends to Thailand so that he can see the world and **meet new people**. He has recently watched a **TV programme** about tourists in Thailand and **believes** everyone he meets will have a **good tan and athletic physique**. Tom now feels that he will **lack confidence** socialising with new people and has become **self conscious** about the way that he looks. When talking to others Tom claims he is **too lazy** to attend the gym regularly before going away and really enjoys **eating what he wants**. However, Tom has heard from his friends that **steroids would be a quick way** to achieving a good body and would remove the need to work hard for the results he desires.

Case Study 2 - Cassie
Cassie is **18** and has been competing for her county **swimming team** for many years. After winning the majority of the county competitions over the last year Cassie has been asked to **trial for Team GB** as they see real **talent** in her. Cassie's **life-long dream** has been to be a **professional** athlete and has always put her other **studies second to this**. Over the last few days Cassie has had **some doubts** and is **worried** she will not be as good as the others competing in the trial. Cassie has been **told by a friend** that everyone is taking banned medications to **increase performance** these days and she would be disadvantaged if she didn’t.

Case Study 3 - Joel
Joel is **16** and has been **attending the gym** for the last 12 months. He has noticed considerable improvement in his strength since attending the gym, but is **physically smaller** than the rest of his friends and cannot lift as much weight as them when training. This has often led to Joel being **teased** by his bigger friends. His brother Steve is **21** and had the same problems as Joel at his age, but is now **physically well developed and just as strong as his friends**. Joel is considering using **steroids to catch up** with his friends despite being told by Steve that with **time** he will catch up with them naturally.

Case Study 4 - George
George is 19 and has a **strict routine** where she runs **5 miles daily** and is very careful with her **diet**. She has a **boyfriend** and has been told by many that she is beautiful and **has a good physique**. When she is not exercising she enjoys watching **reality TV** and listening to her favourite **music artists**. Recently George has started to become **upset** that despite the exercise and diet she **believes she will never** look like her **role models**. George’s boyfriend has become concerned because she has recently seen an **advert in a magazine** for some **diet pills** and is considering use.
**Case Study 1 - Tom**

**Motivations:** gain an athletic and muscular figure, improve confidence, attract other people, to reduce the time required in the gym and having to control his diet.

**Consequences:** Interfere with natural physical development and hormones, injecting risks, side effects associated with steroid use.

**What could they do differently:** Steroids alone will not give Tom the physique he desires. Regular exercise and a good diet are likely to allow Tom to achieve his goals without taking risks. This will also release ‘feel good’ chemicals which will also improve Tom’s confidence.

**Case Study 2 - Cassie**

**Motivations:** increase athletic performance, gain edge over other competitors, secure placement in British Athletic Team, increase earning potential.

**Consequences:** cheating, getting caught will lead to a ban in both professional and amateur clubs, loss of future earning potential, loss of reputation, potential side effects associated with performance enhancers.

**What could they do differently:** Talk to someone reliable (e.g. coach) about confidence issues, this alone could affect performance!

**Case Study 3 - Joel**

**Motivations:** peer pressure, bullying, acceptance amongst peers, not wanting to be left behind, improve gym performance, achieve physical goals.

**Consequences:** interfere with natural physical development, injecting risks, side effects associated with steroid use.

**What could they do differently:** wait until he finishes developing naturally like his brother, talk to someone reliable, rise above peer pressure, explore new training and diet plans that may help him achieve his goals quicker naturally.

**Case Study 4 - George**

**Motivations:** to lose further weight, media pressure and influence from celebrity culture, concerns surrounding self-esteem and body image.

**Consequences:** develop dependence upon diet pills to regulate weight, risks associated with weight loss pills e.g. nausea, headaches, sleep disturbance.

**What could they do differently:** Continue with her current exercise and diet plan, talk to someone reliable about how she feels as adding more exercise and restricting her diet further could increase the problem, spend less time comparing herself to celebrities.
# Image Enhancing Activity

<table>
<thead>
<tr>
<th>Activity</th>
<th>Real</th>
<th>Not Real</th>
</tr>
</thead>
<tbody>
<tr>
<td>Face packs made of crocodile dung to improve skin.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sleeping in a bed of salt to draw out any physical weakness and impurities.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The use of lead based paint to whiten the face.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bathing in cows urine to tighten the skin.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drinking a tonic made of mashed up dogs’ or monkeys’ testicles as an elixir of life and to increase strength.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eating live tapeworms as a weight loss aid.</td>
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<tr>
<td>Injecting into the skin by your belly to get a tan.</td>
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<tr>
<td>In 1930s gravy and eye liner was used by women on their legs to imitate wearing tights.</td>
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<td></td>
</tr>
<tr>
<td>Daily bleeding by cutting or leeches to rejuvenate life.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japanese women used to dye their teeth black to indicate they were happily married.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ingest jellyfish venom to excite the muscles and make them look more toned.</td>
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<tr>
<td>Soaking the feet in herbs and animals’ blood and then tightly binding with fabric to halt physical growth.</td>
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<td></td>
</tr>
<tr>
<td>Eating cow dung to acquire the ‘strength of an ox’.</td>
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</tr>
</tbody>
</table>
Real:

- **Face packs made of crocodile dung** - often used by the Roman elite.

- **Dyeing teeth black** - this activity also helped prevent tooth decay.

- **Lead based face whitener** - lead is known to be highly toxic.

- **Drinking tonic made from dogs/monkeys testicles** - in 1856 this was believed to be an elixir of life.

- **Eating live tapeworms** - believed the worm would absorb calories consumed and not the individual.

- **Gravy and eyeliner tights** - common fashion amongst women during the 1930s.

- **Daily bleeding** - this has been practiced by civilisations all over the world.

- **Soaking and binding feet** - this caused the bones to break causing severe pain.

- **Injecting into skin for tan** - regardless of the substance all injecting carries a risk of infection and other damage.

Not Real:

- **Bathing in cow’s urine.**

- **Ingesting jellyfish venom.**

- **Sleeping in a bed of salt.**

- **Eating cow dung to gain ‘the strength of an ox’.**
**The Liver**

Side effects relating to **Awesome-ozole** and the liver have included:

Changes and destruction of liver cells due to toxic effects, which can lead to:

- Jaundice (skin turning yellow)
- Liver Disease
- Cancer of the Liver

**The Brain**

Side effects relating to **Awesome-ozole** and the brain have included:

1. Sleep disturbances/insomnia.
2. Temporarily stops natural hormone production, which:
   - Leads to severe depression (once users have stopped using it)
   - Reduction in sex drive (once users have stopped using it)
   - Difficulty restarting hormone production following prolonged use e.g. Testosterone
3. Causing high blood pressure leading to a stroke

**The Reproductive System**

Side effects relating to **Awesome-ozole** and the reproductive system have included:

1. Temporarily stops natural hormone production, which may:
   - Stop menstrual cycle
   - Cause a shrinking of testes
   - Lead to fertility complications
   - Reduce sex drive (once stopped using)
2. Cause prolonged painful involuntary erections in men
The Skin & Hair

Side effects relating to **Awesome-ozole** and the skin and hair have included:

- Severe and painful acne (common)
- Development of breast tissue in male users (gynaecomastia)
- Reduction in breast size for female users
- Development of facial hair in female users
- In some cases – loss of hair on scalp/baldness

The Heart

Side effects relating to **Awesome-ozole** and the heart have included:

- Reduce quantities of ‘good’ cholesterol
- Increase quantities of ‘bad’ cholesterol
- Cause high blood pressure
- Arrhythmias (irregular heart beat)
- Chest pain
- Heart attack
- Thrombosis (blood clotting)
Most steroids and image enhancing drugs (SIEDs) are originally pharmaceutical medications, developed to treat specific medical conditions e.g. Cancer, HIV, growth disorders, and sexual dysfunction. These can only be obtained legally through medical prescription which means a large proportion of SIEDs obtained without prescription (i.e. on the black market or via websites) are not made by licensed pharmaceutical companies. As such three grades of SIEDs exist:

**Pharmaceutical Grade**

These are manufactured in a strictly controlled and licensed environment by genuine pharmaceutical companies and professionals. Their purpose is for human use and they have been tested to make sure they work properly. This grade would be the type of SIED prescribed by a doctor in medical cases.

**Veterinary Grade**

Veterinary steroids may contain the same medicines as pharmaceutical grade steroids but often at higher doses. Whilst making these the safety standards may be lower as they are not intended for human use. Some people think they may be identical to human versions, but they can actually be chemically different and take a different effect on the human body.

**Underground Laboratories (UGL)**

These are products often made in illegal and unlicensed premises such as people’s homes. The sterility, content, strength and quality of the product cannot be guaranteed. UGL’s are not made to the same strict standards that pharmaceutical medicines are made under. This means the end product may not be as stated on the label. Not knowing what drug you are taking, or at what dose, makes it extremely difficult to know and manage any possible side-effects.
APPENDIX 11  CURRICULUM LINKS

PSE Framework Objectives:

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<thead>
<tr>
<th>Key Stage 3</th>
<th>Key Stage 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PSE Skills Framework:</strong></td>
<td><strong>PSE Skills Framework:</strong></td>
</tr>
<tr>
<td>• Developing Thinking</td>
<td>• Developing Thinking</td>
</tr>
<tr>
<td>• Developing Communication</td>
<td>• Developing Communication</td>
</tr>
<tr>
<td><strong>Range:</strong></td>
<td><strong>Range:</strong></td>
</tr>
<tr>
<td>• Active Citizenship</td>
<td>• Active Citizenship</td>
</tr>
<tr>
<td>• Health and Emotional Well-Being</td>
<td>• Health and Emotional Well-Being</td>
</tr>
<tr>
<td>• Moral and Spiritual Development</td>
<td>• Moral and Spiritual Development</td>
</tr>
</tbody>
</table>

Full information relating to the *Personal and Social Framework for 7-19 Year Olds in Wales* can be found at: [http://wales.gov.uk/psesub/home/](http://wales.gov.uk/psesub/home/)

Literacy across the curriculum:
Each workshop includes the following aspects from the literacy/numeracy framework:

<table>
<thead>
<tr>
<th>Workshop 1: SIEDs Awareness</th>
<th>Workshop 2: Motivations for use and body image</th>
<th>Workshop 3: Risk and complications</th>
<th>Workshop 4: Market and culture</th>
</tr>
</thead>
<tbody>
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<td><strong>Speaking L(O)sp</strong></td>
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<td><strong>Structure and organisation L(W)s&amp;o</strong></td>
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Full information relating to the *National Literacy and Numeracy Framework* can be found at: [http://learning.wales.gov.uk/resources/nlnf/](http://learning.wales.gov.uk/resources/nlnf/)