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Learning Objectives



Describe the disadvantages of taking PEDs in sport.

Explain the effects of taking PEDs.

Summarise the perceived advantages and disadvantages to taking PEDs.

5.3 Ethical Issues	
Start of the lesson	End of the lesson
1. Name two effects of PEDs on the sports performer.	
- increases speed power	- increase aerobic capacity - increase strength/speed
2. Identify 2 disadvantages to taking PEDs in sport.	
- become addictive - unfair to opponents	- health issues - unfair to opponents
3. Name 3 'over the counter' medicines on the banned substance list.	
- narcotic analgesics	- beta blockers - diuretics - narcotic analgesics
4. Give 3 reasons athletes may take PED and 3 reasons why they should not.	
+ increase performance (peer pressure) + addicted - unfair advantage - thickens blood - become addicted	- increase performance - addictive
Start of the lesson: DOWNLOAD BAR 0% 25% 50% 75% 100% 	End of the lesson (Actual %): DOWNLOAD BAR 0% 25% 50% 75% 100%

Name:



Task 1A01: Using the list of banned substances and the MindMap you produced last week, link all of the **prohibited substances** to a sport and explain how they could help to improve performance.

Stimulants

Speed up parts of the brain which can increase alertness.

Sprinter would benefit as it could help them at the start of the race when fast reaction times are needed.

Narcotic Analgesics

Reduces pain during injury.

Boxing as you tend to hurt yourself in physical sports

Anabolic agents

stimulate muscle growth. increase strength + power

Rugby strength needed for strong tackles

Peptide hormones (EPO)

stimulates RBC production. increases aerobic capacity

Running - long distance

Diuretics

Helps weight loss

Boxing - you need to be a certain weight

Blood Doping

increase aerobic capacity

Running

Beta Blockers

improves fine skills - calms you down

Archery

0 9

In 2016, 136 Russian track and field athletes were banned from competing at the Rio Olympics due to evidence of widespread use of performance enhancing drugs (PEDs) and blood doping.

0 9 . 1

Describe the process of blood doping.

[3 marks]

Blood doping involves removing a performer's blood a few weeks before competition then adding it back, this increases the red blood cells produced without the other blood. This is beneficial to long distance runners because with an increase RBC count they can run for longer and faster.

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Explain how blood doping could improve the performance of a marathon runner.

[3 marks]

Because long distance marathon runners need a lot of RBC to carry oxygen to their working muscles for them to perform at a high standard as it increases their aerobic capacity and speed.

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6





0 9 . 3

State **three** negative side effects that an athlete may suffer as a result of blood doping.

[3 marks]

1 Increased risk of infection ✓

2 Increased risk of stroke ✓

3 Blood becoming thicker. ✓

0 9 . 4

Suggest the negative impacts that Russia's ban at the Olympics may have had on the sport of athletics.

3
[4 marks]

It puts a bad image on the sport, might
reducing the ~~total~~ amount of viewers
for that sport. ✓

It is unfair to the other Russian
athletes who do perform fairly. ✓

7

Turn over for the next question

Turn over ►







Complete the spider diagram to give you a summary of this topic.

Blood doping

What is it? Increases red blood cells and aerobic capacity

Two positive effects:

Increases red blood cells
Allows you to perform for longer

Two negative effects: increase

risk of infection and
risk of heart attack

A sport where a performer might use it:

marathon runner

Revision technique: spider diagrams

Spider diagrams help to organise your notes in a concise, structured way and your memory can often recall a spider diagram more easily than a page of notes.

Do you like this technique? Does it work for you? 😞 😐 😊



Prohibited methods



PERFORMANCE-ENHANCING DRUGS (PEDs)



Legally prescribed drugs, whose use by sports performers is restricted

Beta blockers

What are they? Reduce heart rate and arousal.

Two positive effects:

steady nerves
improved fine motor control

Two negative effects:

Nausea
tiredness

A sport where a performer might use them:

snookers





Stimulants

What are they? Increase
alertness

Two positive effects:

- speed up reaction time
- decrease fatigue

Two negative effects:

- irregular pulse
- insomnia

A sport where a performer might use them:

Boxer

Narcotic analgesics

What are they?

Reduce pain

Two positive effects:

- play if your injured,
- train harder

Two negative effects:

- injury worse in long run
- difficult to concentrate

A sport where a performer might use them:

Boxing

Anabolic agents

What are they?

stimulate muscle growth

Two positive effects:

- increase strength + power
- increase recovery time

Two negative effects:

- hair loss
- achne

A sport where a performer might use them:

Rugby

Prohibited substances

Diuretics

What are they? helps weight
loss

Two positive effects:

- if need to be certain weight
- easy to lose

Two negative effects:

- increase risk of dehydration, increase
- headaches

A sport where a performer might use them:

Boxing

Peptide hormones (erythropoietin [EPO])

What are they? stimulates
RBC production

Two positive effects:

- allows you to run longer
- increases aerobic capacity

Two negative effects:

- blood thickeners
- increase risk of heart attack

A sport where a performer might use them:

long distance runner



Task 4 A01/A02/A03: The arguments over whether PEDs can be used will continue within sport. It is important for you to be able to discuss both the advantages and disadvantages of taking PEDs. Using the PROMPTS below outline both the advantages and disadvantages of taking PEDs in sport.

Perceived advantages????

Increases the chance of success:

Yes because increases characteristics of performance. However, risk factors are high and unfair to other competitors.

Fame and fortune:

can get you famous if you perform well and don't get caught. However, if you get caught you can get famous and give yourself a bad name.

Levels the playing field:

Performers can feel threatened so feel the need to take PEDs to beat their opponents.

Disadvantages!!!!

Unethical and cheating:

The performers know deep down they didn't deserve to win and will be on their conscience.

Athlete's reputation:

can be destroyed and can't be allowed to play again, can lose sponsorship and when people find out their reputation can be destroyed.

Medal and prize money:

You will take away the opportunity for other ~~perform~~ people to win the money and prizes who deserve it more

Sponsorship and endorsements:

Sponsors will drop their clients if they get a bad reputation

Health risks:

Have many health risks damaging the body of the performer:

The reputation of their sport:

If lots of people in one sport were PED the sport will get a bad reputation

Credibility of the sport:

- loss of trust
- younger people won't want to go into the sport