Performance Enhancing Drugs – Hand out

**Performance Enhancement is….**

The use of any \_\_\_\_\_\_\_\_\_\_\_\_\_ or practice that improves athletic \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or physical work capacity. It can be achieved through physical, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, psychological, nutritional or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ means”.

**Androgenic Anabolic Steroids**

* These mimic the effect of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (the male hormone).
* They increase muscle mass, reduce recovery time and help athletes train for longer.
* Side effects often include the development of traits mainly associated with the opposite sex. E.g. women experience an increase in facial hair and men develop breast tissue.

**Human Growth Hormone**

* Produced naturally by the \_\_\_\_\_\_\_\_\_\_\_\_\_ gland (endocrine gland) and stimulates growth.
* But, synthetic HGH is abused by some athletes as it speeds muscle development, reduces body fat and strengthens muscles.
* Side effects include: muscle pain, cardiovascular issues and decreased life expectancy.

**Blood Doping – Erythropoietin**

* A \_\_\_\_\_\_\_\_\_\_\_\_\_\_ produced naturally by the kidney which stimulates red blood cell production.
* When artificial EPO is injected into the body it dramatically improves an athletes’ aerobic capacity and delays fatigue as their oxygen carrying capacity is increased.
* Side effects include: increases in blood pressure, liver damage and increased cancer risk.

**Stimulants**

* Substances that \_\_\_\_\_\_\_\_\_\_\_\_\_ the level of physiological or \_\_\_\_\_\_\_\_\_\_\_\_\_ action in the body.
* They can be used to increase alertness and boost performance.
* Side effects include: anxiety, headaches, nerve damage, arrhythmia and collapsing.

**Diuretics**

* Rid the body of \_\_\_\_\_\_\_\_\_\_\_\_\_, thus leading to an increase in water excreted via urine.
* Results in rapid weight loss so is useful for athletes trying to attain a particular weight.
* Side effects include: headaches, cramps, dizziness, arrhythmia and high blood glucose levels.

**Ethical Matrix**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Wellbeing (safety, welfare and health)** | **Autonomy (freedom and choice)** | **Justice (fairness)** |
| **Athletes** |  |  | PEDs used as a way to level out genetic differences between athletes |
| **Other Competitors** |  | Right to choose not to take them which should not be undermined by others |  |
| **International Olympic Committee** |  | Right to test athletes despite it sometimes being invasive |  |
| **Spectators** |  | Right to know about the athletes’ drug use | Paying to see true competition or best possible competition |