

Revision Series 2023

# AQA A-level Physical Education Paper 2

◆ Notes pages ◆



The EverLearner

## How to use this revision session and notes

- Complete this document when doing the live or on-demand revision shows.
- Have the National Mock Exam to hand and, ideally, your completed, marked version of it.
- Have the [exam infographics](#) to hand. These will be referred to throughout the show.
- Focus on the skills that James is presenting as much as the content. In most cases, students have a knowledge of the topic but struggle to respond to the command in the question. This is a focus of our revision.
- Complete the notes spaces as extensively as possible and, if necessary, return to the show to complete it more than once in order to make the fullest notes possible.

### My ticklist:

- Notes pages
- Exam infographics
- Exam paper
- Exam mark scheme
- Exam model answers

# Performer profiles

Use these performer profiles when making examples and developing your A02 skill. The list is not exhaustive and you are encouraged to use your own examples as well as these ones.



## Josh

**Basic Details**  
Age: 19  
Sport: 100m Sprint  
Level: Olympic Podium Potential



## Tom

**Basic Details**  
Age: 43  
Sport: Tennis (singles and doubles)  
Level: Novice




## Kate

**Basic Details**  
Age: 17  
Sport: Triathlon  
Level: Club



## Laura

**Basic Details**  
Age: 15  
Sport: Gymnastics (Artistic)  
Level: National



## Julie

**Basic Details**  
Age: 26  
Sport: Netball (GD, GK)  
Level: Semi-professional/National



## Carlos

**Basic Details**  
Age: 35  
Sport: Wheelchair basketball  
Level: Ex-national team

# Material covered in the National Mock Exam

- Green denotes content to be covered in this session.
- (#) denotes the number of marks on Paper 1 since 2018.

## Section A: Exercise Physiology & Biomechanics

- Training methods - Fartlek (aerobic power) (0)
- Acute injury (1)
- Recovery from exercise (3)
- Factors affecting stability (0)
- Mechanical advantage and disadvantage (2)
- Impulse (5)
- Newton's law of angular motion (0)
- Angular motion (1)

## Section B: Sport Psychology

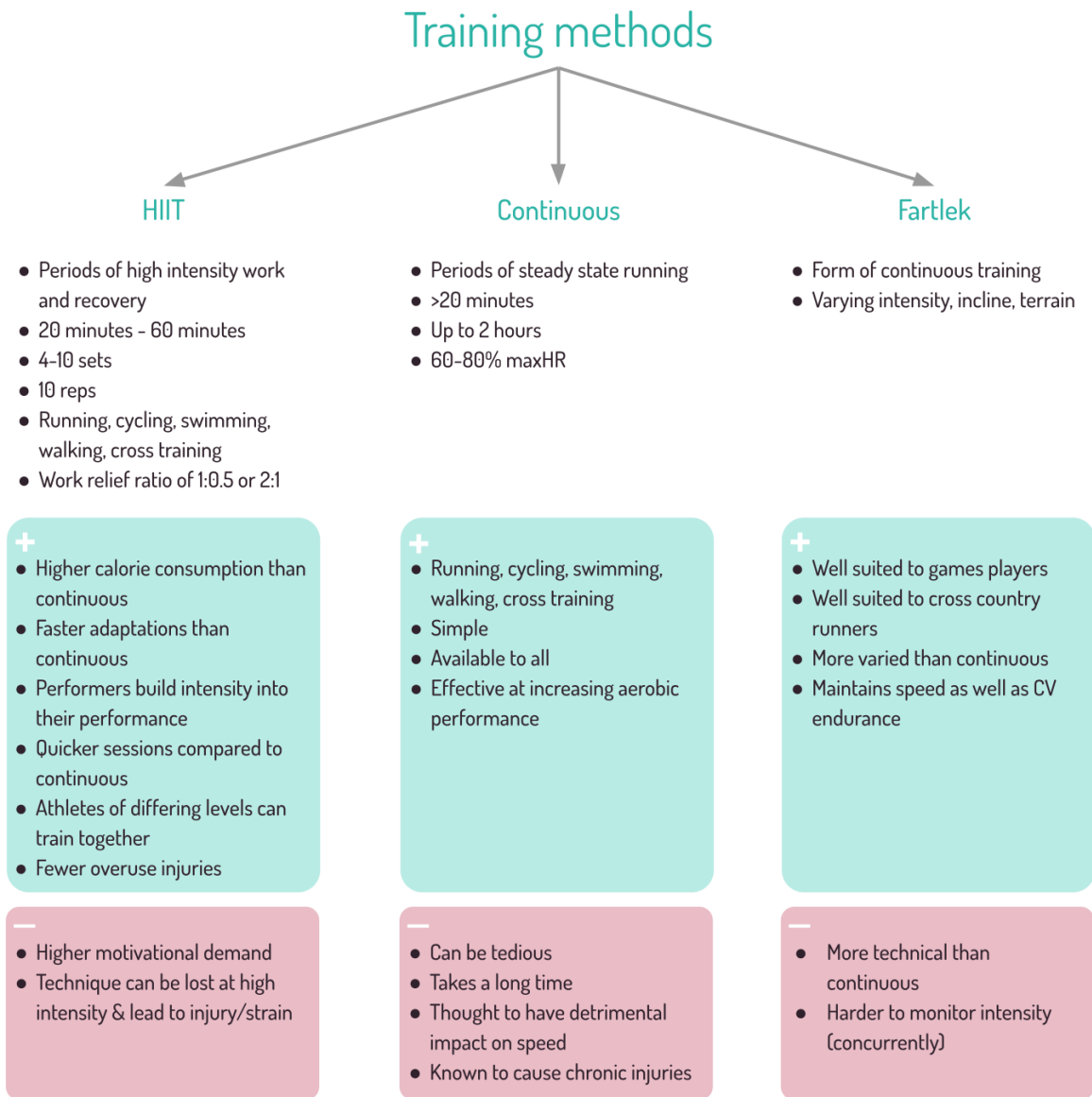
- Theories of aggression (7.5)
- Motivation (4)
- Tuckman's model of group dynamics (2)
- Ringelmann effect and social loafing (0)

- Types of goal setting (4)
- Styles of leadership (4)
- Stress management - somatic techniques (4)

## Section C: Sport and Society and Technology in Sport

- NGB's (1)
- Ethics in sport - key terms (14)
- Effects of drugs on the performer/performance - EPO (8)
- Effects of drugs on the performer/performance - Anabolic steroids (4)
- Technology for sports analytics - data collection (2)
- Development of equipment and facilities (0)
- Role of technology - Audience (0)

# Section 1: Training methods – Fartlek (aerobic power)



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## Section 2: Recovery from exercise

Recovery from exercise				
Compression garments	Massage/ Foam rollers	Cold therapy	Ice baths	Cryotherapy
<ul style="list-style-type: none"> <li>• Increase venous return by acting as the skeletal muscle pump</li> <li>• Starling's law: Venous return = stroke volume</li> <li>• Greater venous return means greater stroke volume, which means faster recovery</li> </ul>	<ul style="list-style-type: none"> <li>• Prevention of DOMS</li> <li>• Removal of toxins</li> <li>• Reduces tightness</li> <li>• Train/compete again sooner</li> </ul>	<ul style="list-style-type: none"> <li>• Decreased swelling/inflammation</li> <li>• Better sleep</li> <li>• Improved immunity</li> <li>• Better focus</li> </ul>	<ul style="list-style-type: none"> <li>• Prevents blood pooling</li> <li>• Prevention of DOMS</li> <li>• Capillary flushing</li> </ul>	

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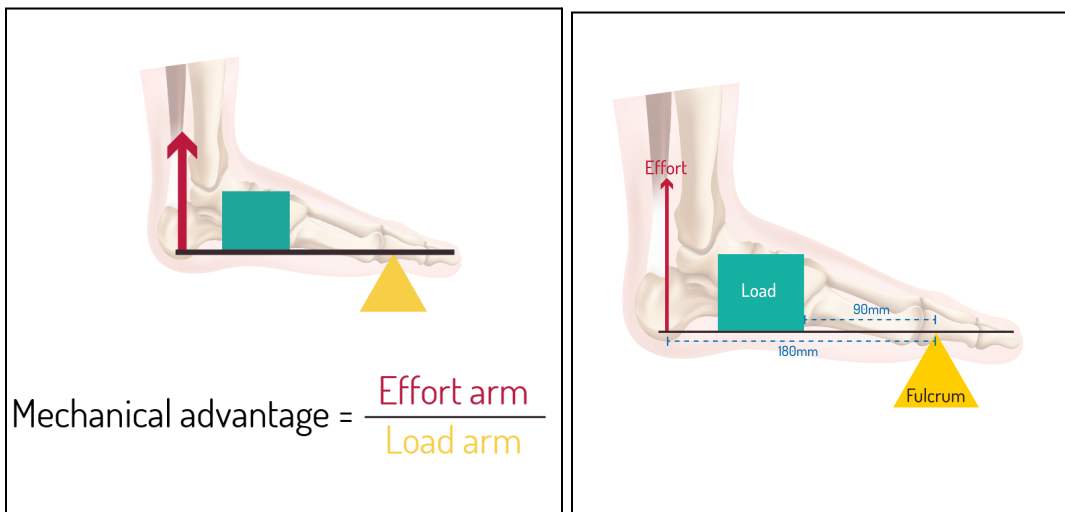
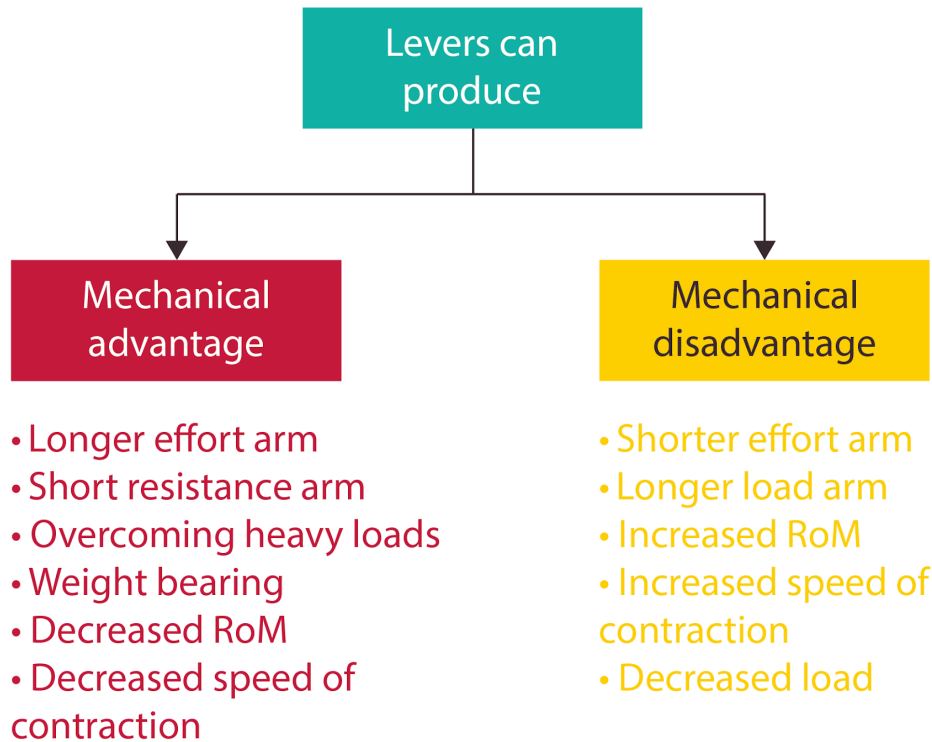
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# Section 4: Mechanical advantage and disadvantage



Use your ruler to simply state whether each of these levers is operating with MA or MD:



## Section 5: Impulse

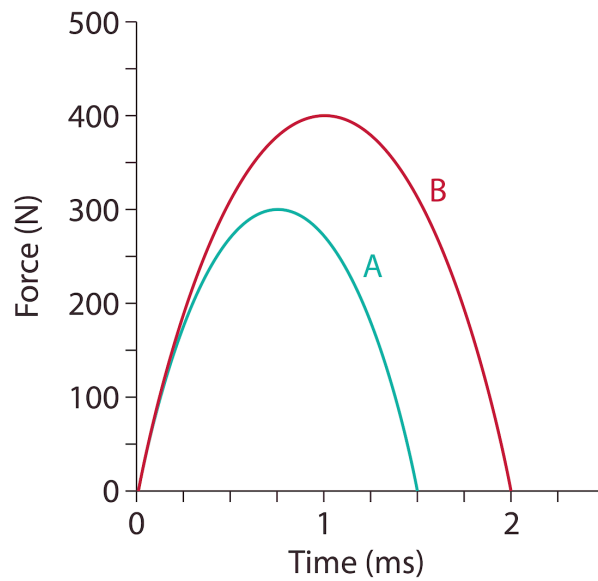
$$I = Ft$$

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# Section 6: Newton's law of angular motion

## Newton's analogues

### Newton's first analogue

- A rotating body will continue in a state of constant angular momentum until acted upon by an external torque.
- A body in flight will rotate with constant angular momentum until landing/external torque.
- A body on ice will rotate with constant angular momentum until landing/external torque.

### Newton's second analogue

- Angular acceleration is directly proportional to the torque acting and takes place in the direction of that torque.

### Newton's third analogue

- For every rotational action, there is an equal and opposite rotational action.

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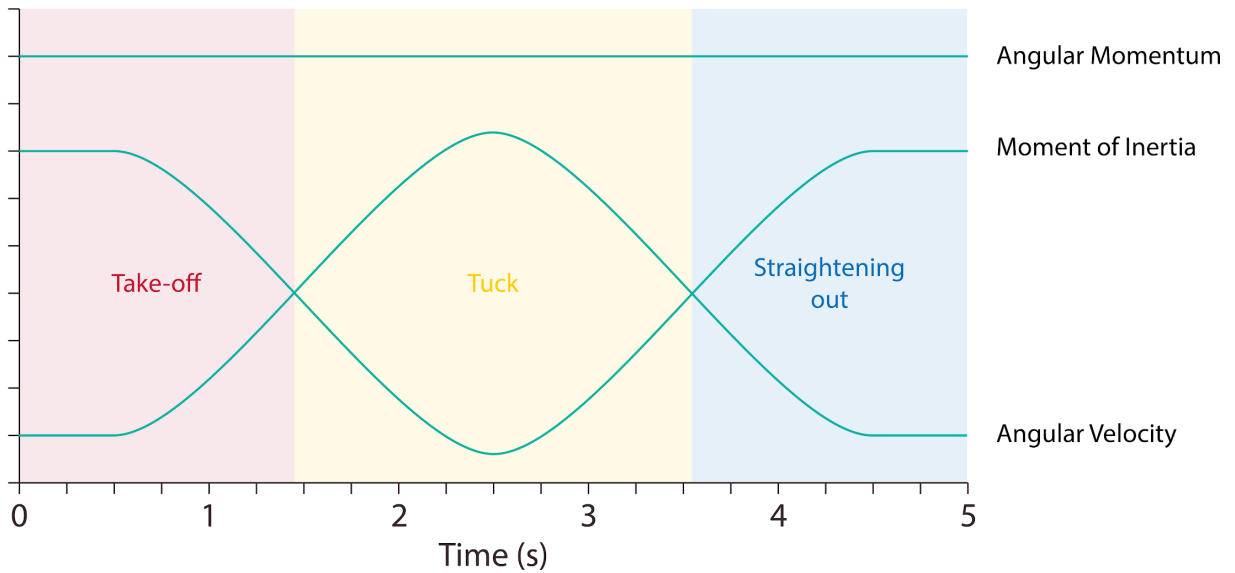
## Section 7: Angular motion

Definition:

Definitions and units of angular motion	
Angular momentum	Quantity of rotation a body possesses
	$\text{Moment of inertia} \times \text{Angular velocity}$
Angular velocity	Rate of rotational motion around an axis of rotation
	$\frac{\text{Angular momentum}}{\text{Moment of inertia}}$
	rads/s
Angular acceleration	Change of rate of angular velocity
	$\frac{\text{Final angular velocity} - \text{Initial angular velocity}}{\text{Time}}$
	rads/s/s or rads/s <sup>2</sup>



## Angular Momentum



A **rotating** body will continue in a state of **constant angular momentum** until an **external torque** acts upon it.

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# Frustration-aggression hypothesis

- Frustration develops when goal-directed behaviour is blocked.
- Frustration ALWAYS leads to aggression.
- If aggression is successfully released, it has a cathartic effect.
- If aggression is not released or punishment is experienced, further aggression will build.
- Interactionist in nature as aggression always follows frustration but takes environmental response into account.

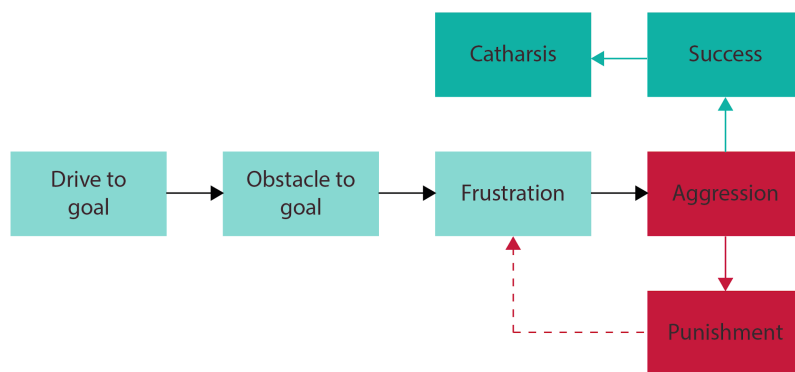


- More realistic than instinct theory.
- It is evident in sport when a performer is blocked from achieving their goal.
- Catharsis does occur when frustration released.
- F-A link is a good one.
- Helps coaches to manage aggressive athletes.



- Frustration does not always lead to aggression.
- Aggression can occur without any frustration including pre-planned aggression.
- Aggression can be socially learned.
- Unpunished aggression does not always lead to catharsis.
- Doesn't take traits into account.
- Not everyone becomes frustrated when goal-directed behaviour is blocked.

## Frustration-Aggression Hypothesis (Dollard, 1939)



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# Aggressive cue hypothesis

- When aroused, the presence/absence of an aggressive cue determines whether aggression is more/less likely.
- Aggressive cues can be weapons/objects/nature of the game/places/people/nature of the event/perceived unfairness/witnessing violence.

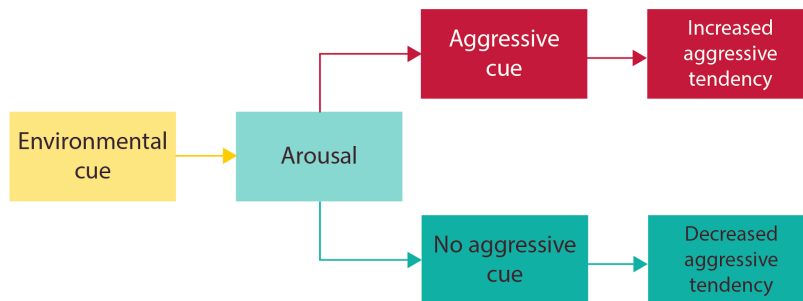


- Clearly shows how environmental influence plays a role in aggression.
- Aggressive cues can be highly personal/individual.
- Explains why frustration doesn't always lead to aggression.



- Aggression does not always occur in the presence of an aggressive cue.
- Aggressive cues could be very different/specific meaning the theory is complex.
- Does not take traits into account.

## Aggressive Cue Hypothesis (Berkowitz, 1969)



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# Section 9: Tuckman's model of group dynamics

Collection of people who share similar goals and interact with one another.

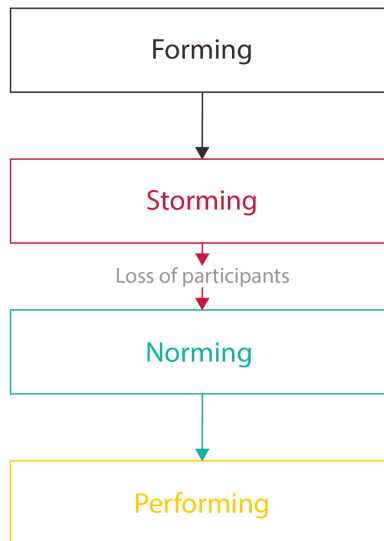
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## Tuckman's Model



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# Section 10: Ringelmann effect & social loafing

## Steiner's Model

$$\text{Actual Productivity} = \text{Potential Productivity} - \text{Losses due to faulty processes}$$

Ringlemann effect	Social loafing
Coordination losses	Motivational losses
Technical losses	
More common in larger teams	Performers being lazy or hiding when they are lost in a team
More common with complex skills	
Reducing the effect:	Reducing the effect:
Establish very clear team and individual goals that relate to one another.	Set high standards and hold performers to them.
Practice like the competition.	Set individual goals.
Develop "teams within teams".	Monitor physical performance with trackers.
Overlearn set plays.	Use notational analysis where relevant.
Select teams where intuition/cohesion is greater.	Punish low motivation.
Use video playback and analysis to highlight mistakes.	Apply drive reduction theory to make sure goals are challenging.
Emphasise/reinforce successes.	

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# Section 11: Leadership styles



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# Section 11: Ethics in sport - Key terms



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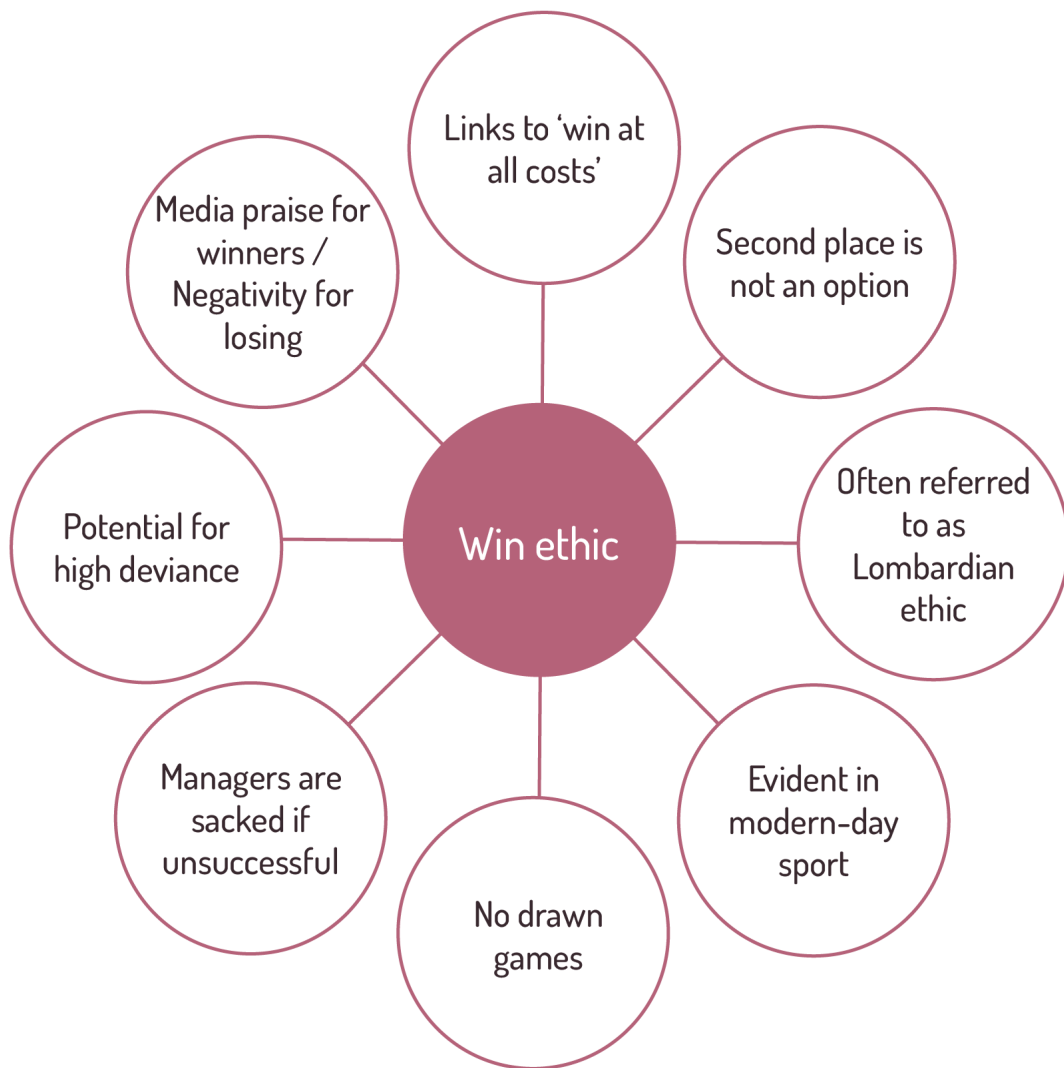
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# Win ethic



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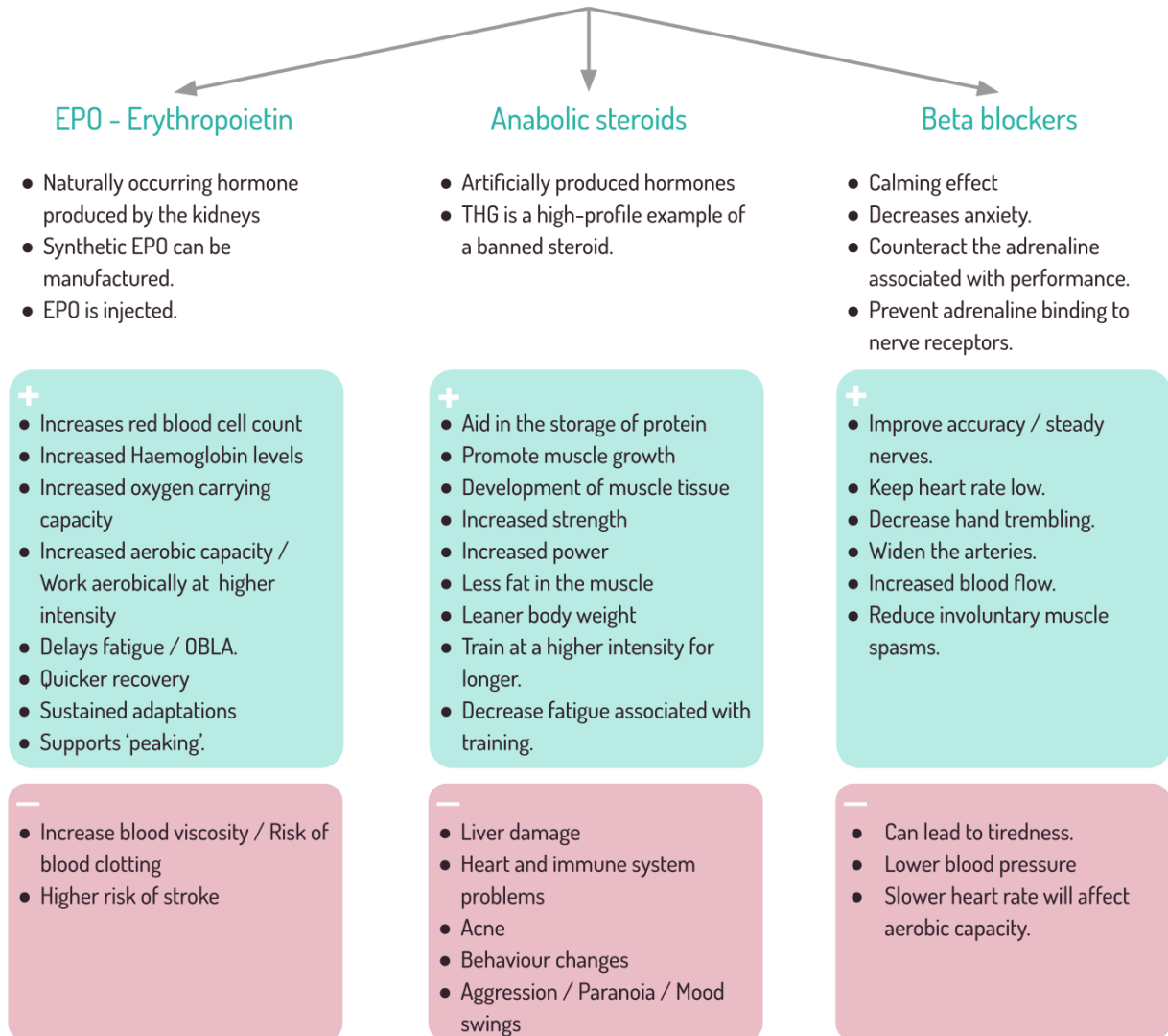
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# Section 12: Effects of drugs on the performer

## Physiological effects of drugs on the performer and their performance



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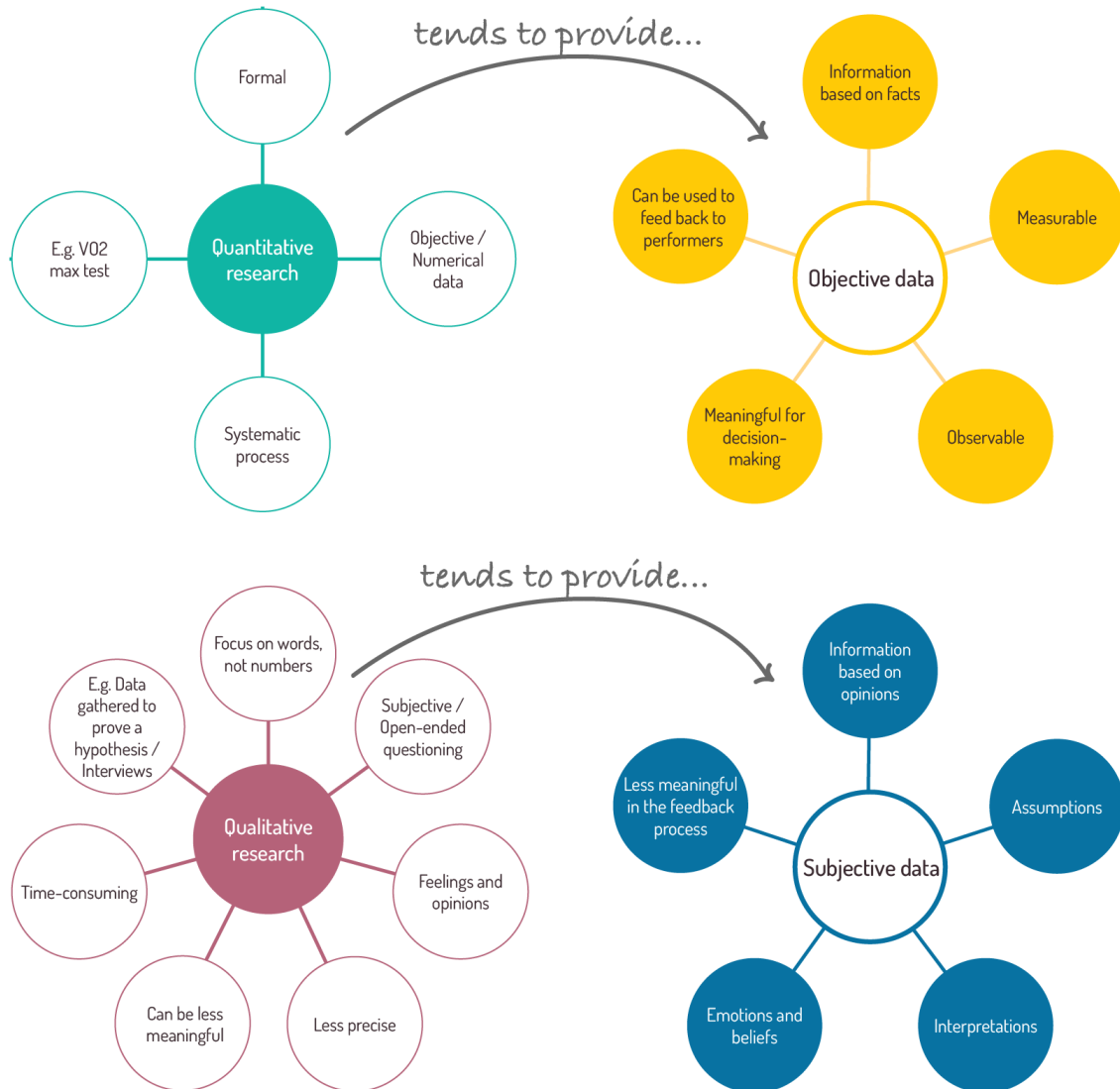
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# Section 13: Technology for sports analytics –

## Data collection

Sports analytics: Studying data from sports performances to try to improve performance



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