

Control of heart rate

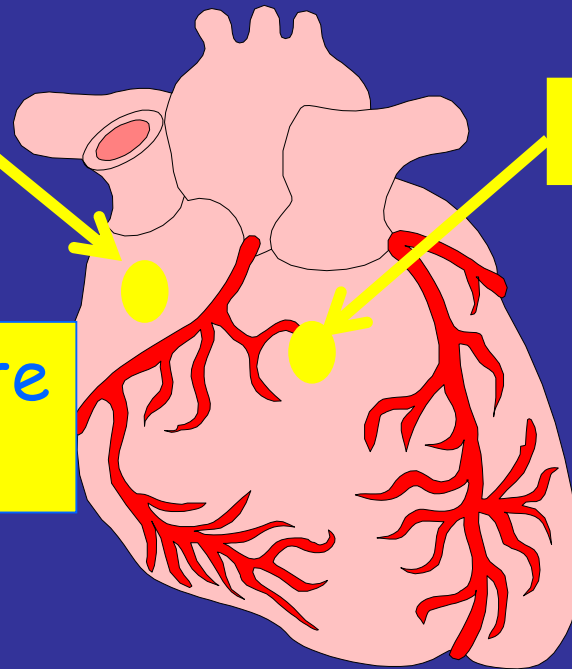
Sino-atrial node

Spreads through atria first - systole

Picked up by AVN

Then down septum

Then from tip of ventricle - systole



Sets heart rate - intrinsic

SAN sets heart rate

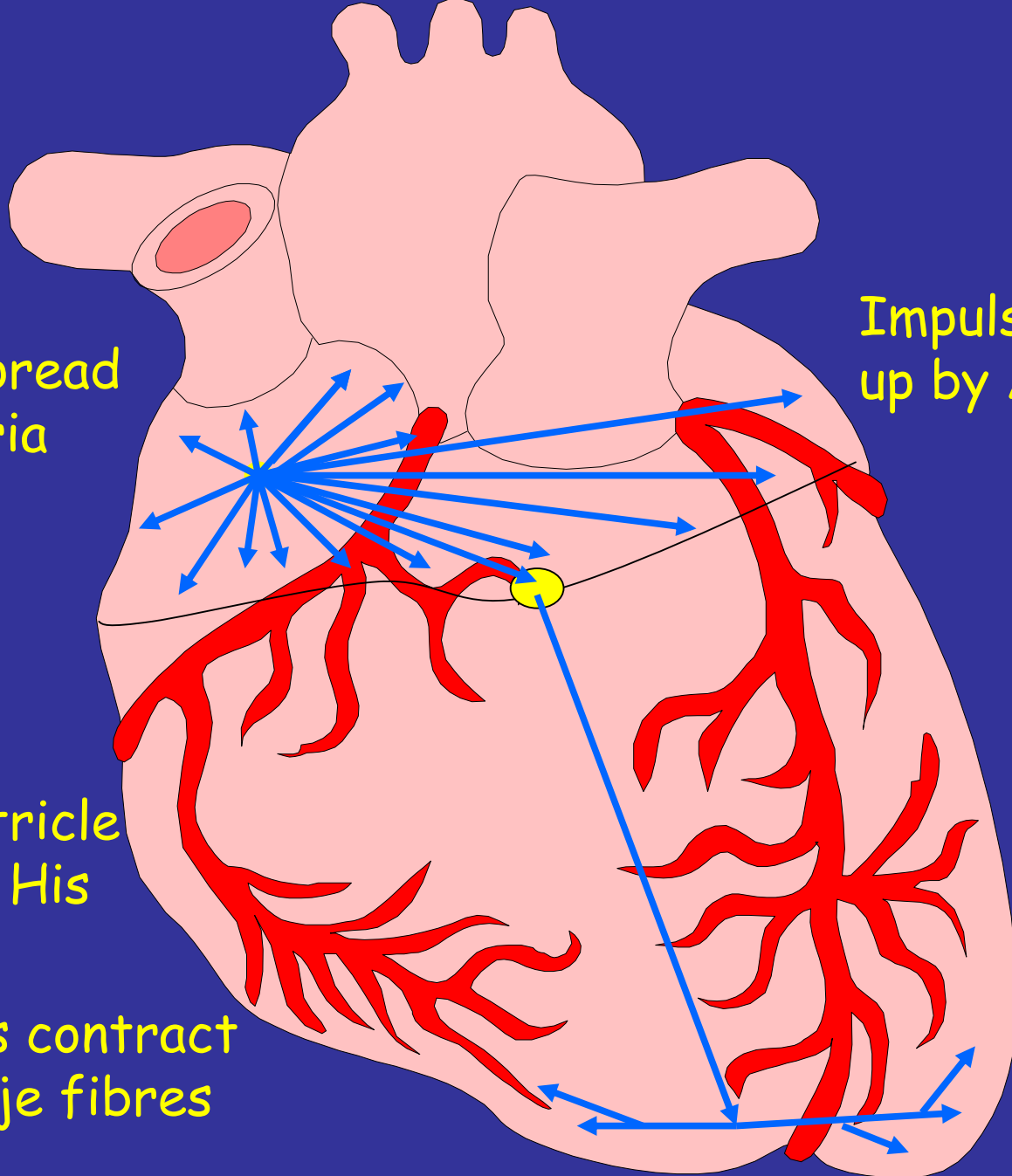
Impulses spread through atria

Valves act as barrier

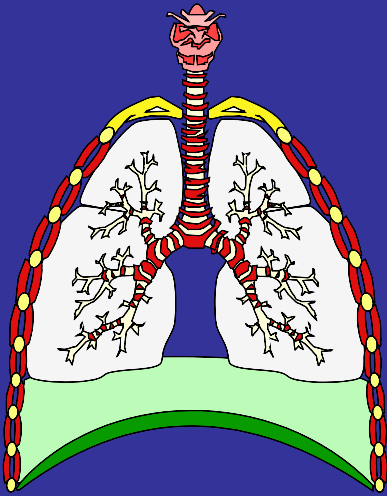
Descend ventricle via bundle of His

Ventricles contract via purkinje fibres

Impulses picked up by AVN

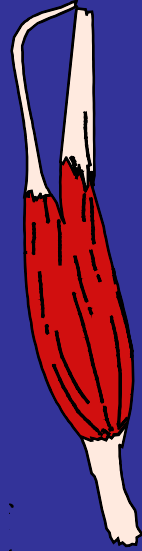


Forming oxyhaemoglobin



During exercise

Oxygenated blood to muscles



In lungs - lots of oxygen - Hb becomes fully saturated with O_2

In working muscles - higher temperature and more CO_2 - more oxygen leaves Hb (dissociates)

Open/closed skills

**Open
skills**

**Closed
skills**



Unpredictable
environment

Predictable
environment

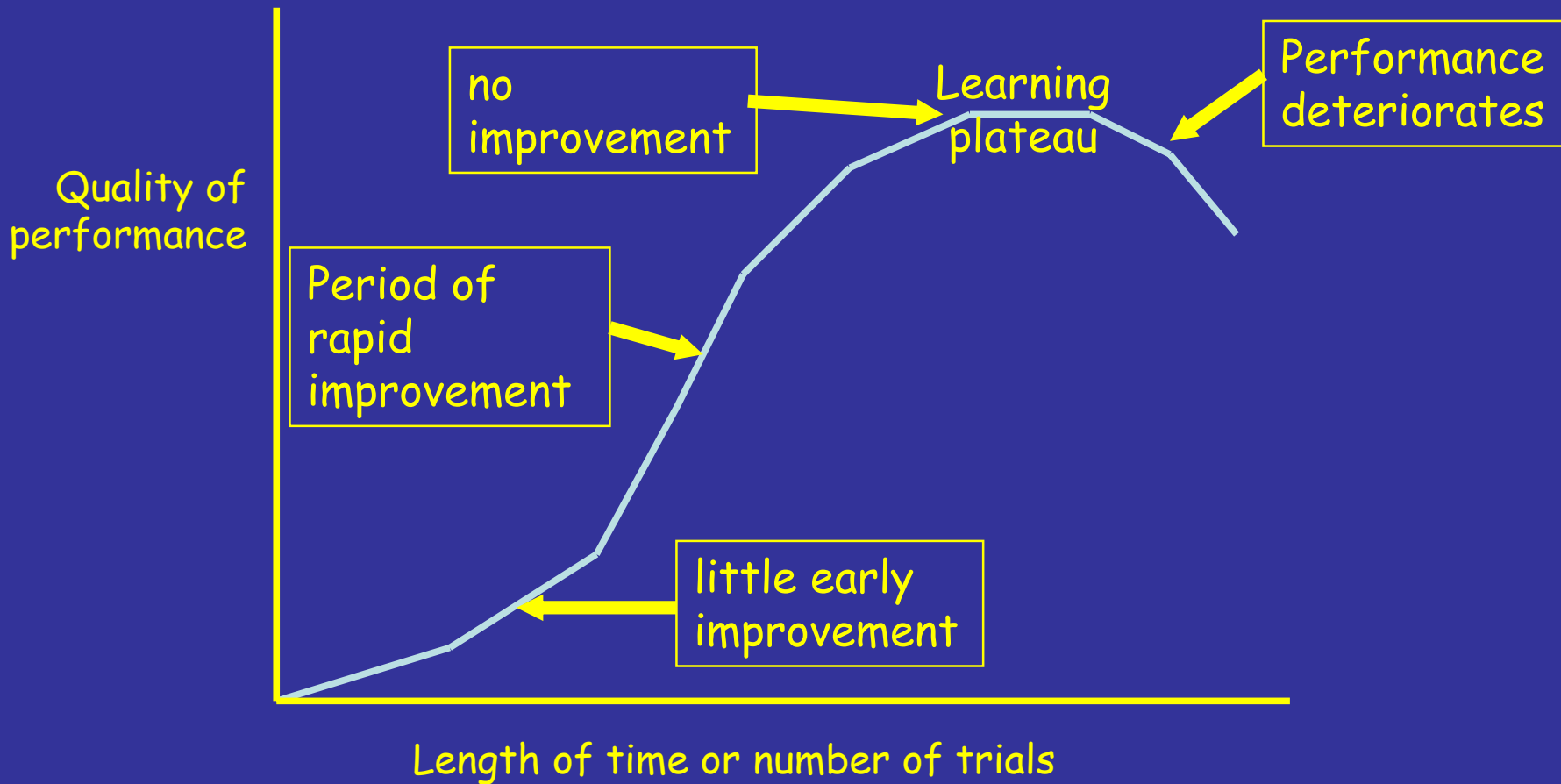
Decisions
to be made

No decisions
- same skill

Open or closed

Javelin throw	Closed
Rugby tackle	Open
Gymnastics tumble	Closed
Netball pass	Open
Swimming start	Closed
Goalkeeper's save	Open
High jumping	Closed
Tennis volley	Open

Learning curve



Causes of a learning plateau

- Fatigue
- Loss of motivation/boredom
- Technical deficiencies/lack of understanding

Preventing a learning plateau

- Fatigue - Rest/recovery periods
- No motivation - Rewards/goals
- Technical difficulty - Isolate and correct faulty technique
- Lack of understanding - Change style/method of practice

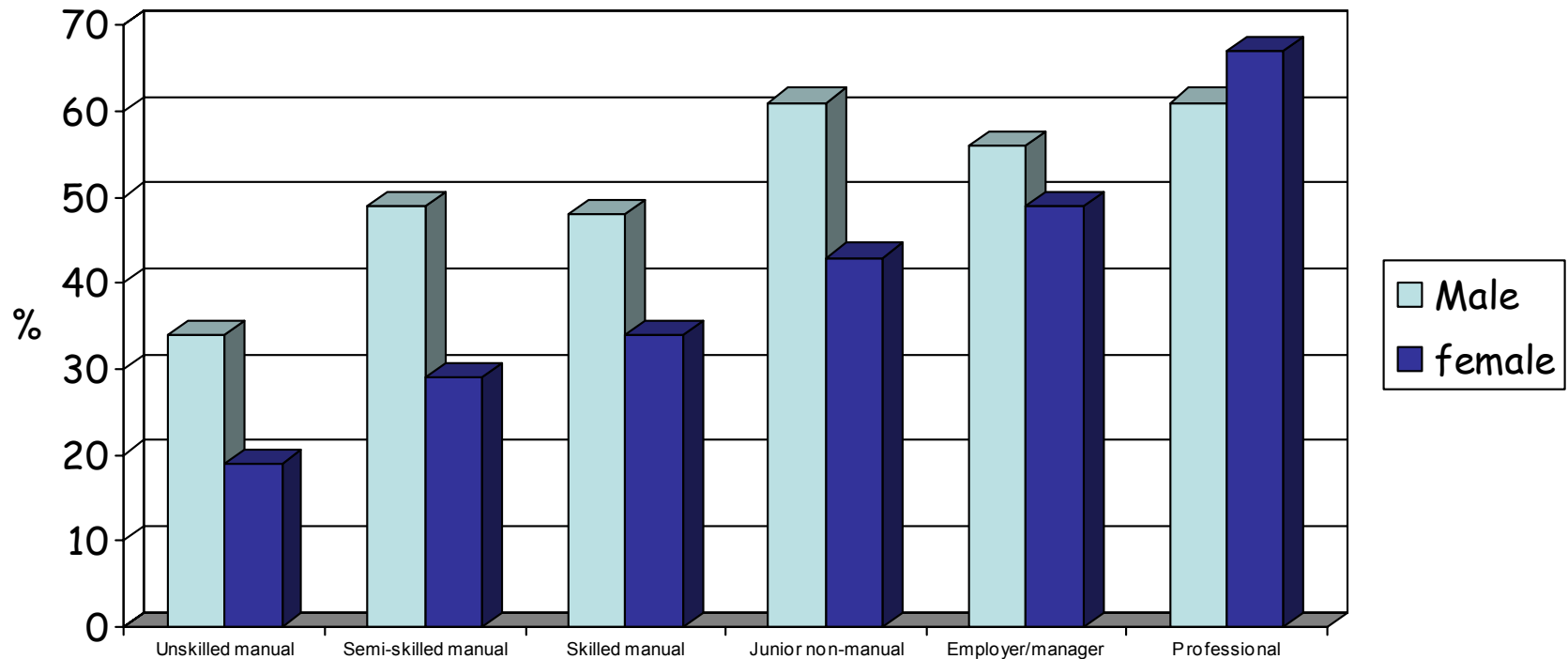
Similarities between play and leisure

Both:

- Intrinsic
- For fun
- Informal structure
- Produce sense of well-being
- Both develop skills
- Casual attitude

Socio-economic groups

Participation rates with socio-economic group



Interpretation of graph

- Increasing participation with increasing socio-economic group
- Both male and female
- Less female participation compared to male – except at professional level
- Decrease in male participation at highest socio-economic groups – manager/ professional

Active Sports

Co-ordinated by Sport England

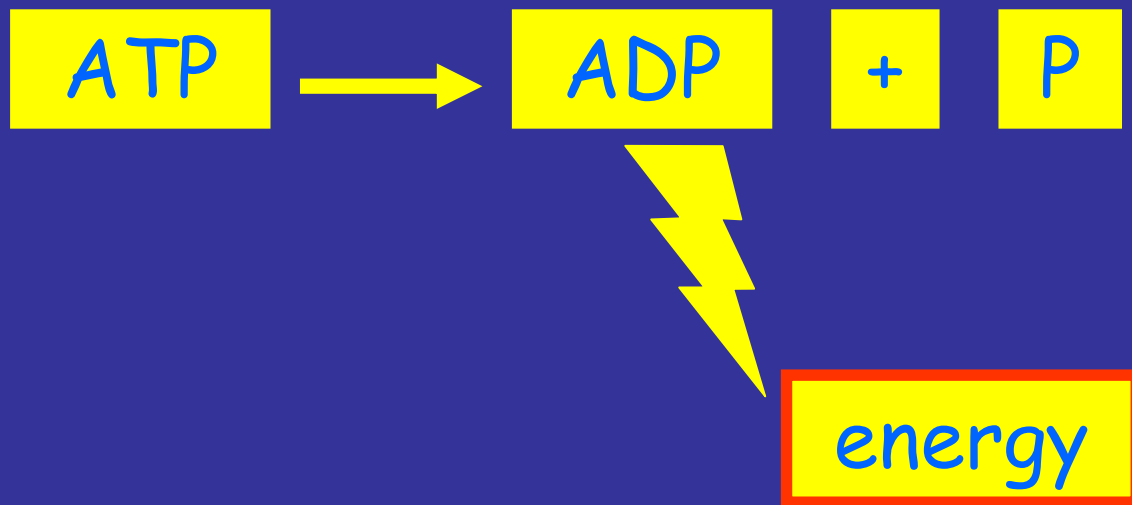
- Active schools – foundation
- Active communities – remove barriers to participation
- Active sports – link participation to excellence
- World Class England – four funding programmes

Active Sports programme

- Funded mainly through Lottery
- Regionalised via Las
- Linked into other programmes – National Junior Sports Programme, Sportsmark, Coaching for teachers

Energy sources

- Muscle contractions require energy
- Provided by breakdown of ATP

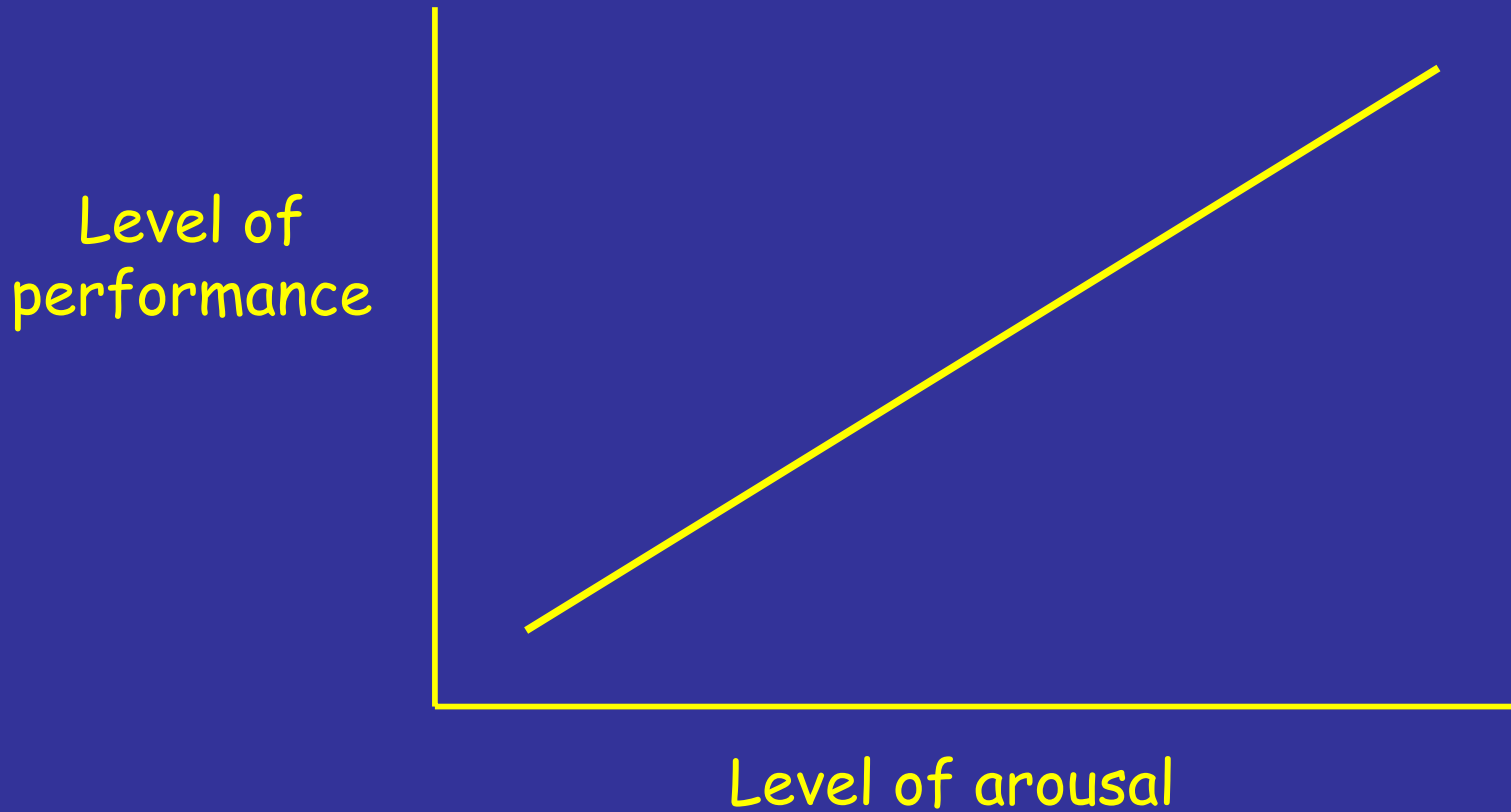


ATP

Hence need to produce ATP

- ATP usually produced from oxidation of foods - aerobic
- ATP occasionally produced directly from stored chemicals – anaerobic
- Energy source used depends mainly upon intensity of demand

Drive theory

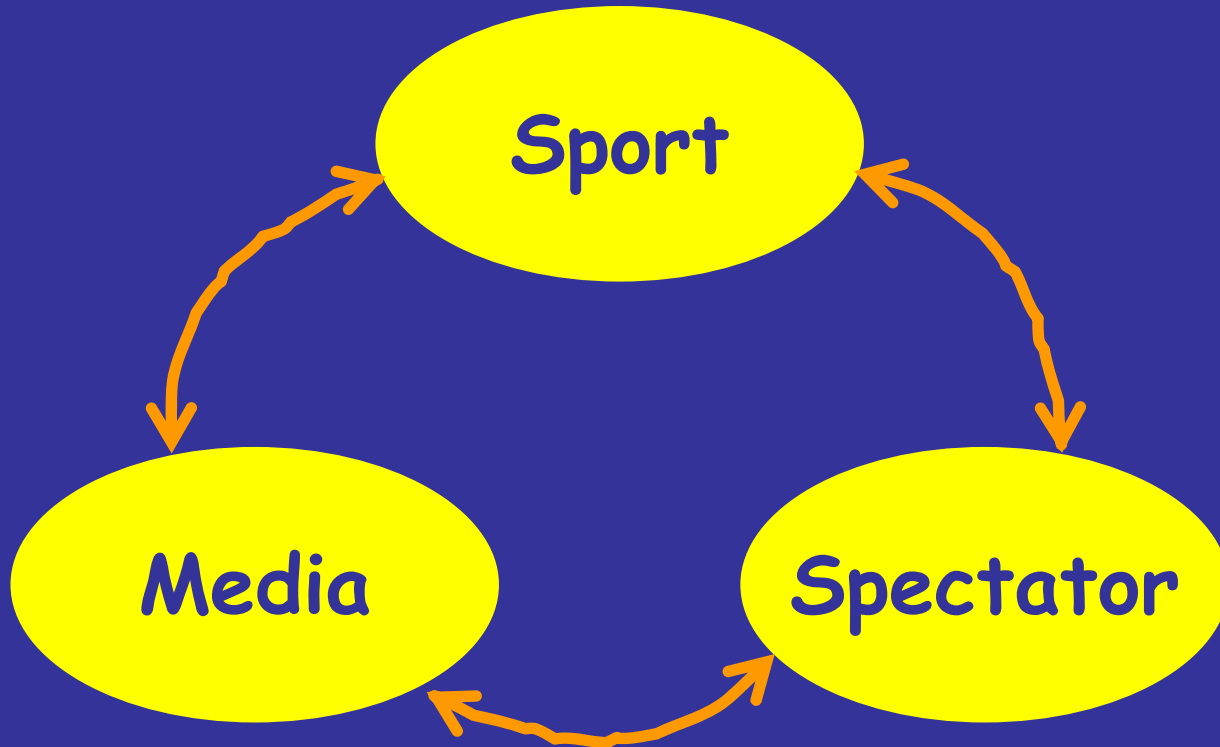


Explanation

- As arousal increases performance of dominant response also increases
- If dominant response is invariably success at skill then performance improves
- If dominant response is invariably unsuccessful attempt at skill then performance deteriorates

- Simple, well-learned skills - arousal improves chance of dominant/correct response occurring
- Complex, not well-learned - arousal increases chance of incorrect/ dominant response being elicited

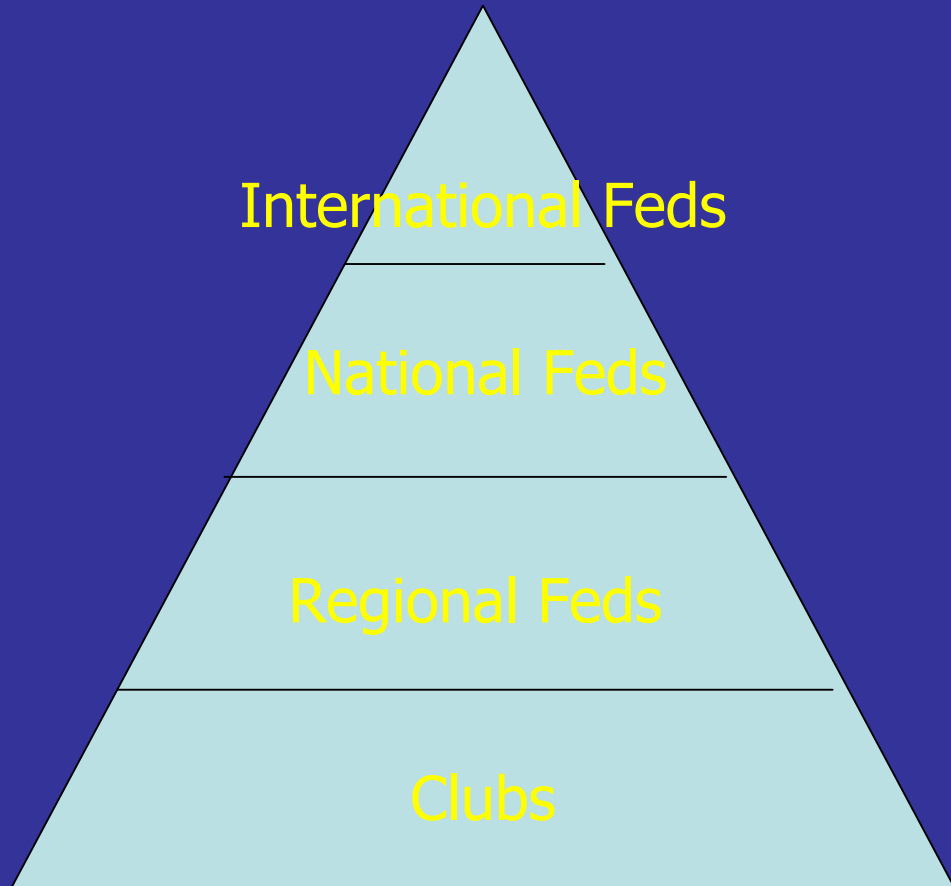
Media - Golden triangle



Media

- Sport – cheap – to report/show
- More readers/viewers – more sales, more advertising, more income
- Need to make information provided interesting – inform or sensationalise

UK sport has a pyramid structure



Pyramid structure

- Clubs
 - You are members – run by amateur volunteers
- Regional Federations
 - Clubs are members – co-ordinate sport at regional level; run regional competitions
- National Federations
 - Regional Feds are members – regulate sport – National championships, rules and discipline, selection of National teams
- International/European Federations
 - Many sports have only European feds; International feds only in major sports