

THREE REGIONS COACHING FORUM #2

WARM UP - SWIM DOWN

Warm up

Warm ups to be taught

1. Control - 100% coach
2. Semi Controlled - 50% coach
3. No Control - Swimmer control

Components of Warm Up

1. Loosen
2. Basic Technique
3. Build.
4. Race pace
5. Loosen

REASONS FOR WARMING UP

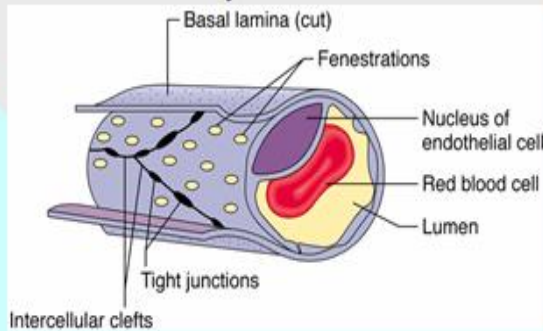
PHYSIOLOGY

1. To allow for faster muscle contraction
2. Improved mechanical efficiency due to decreased resistance in muscle fibres and joints.
3. As muscle temperature increases will result in increased rate of blood flow and transfer of oxygen and nutrients to the muscle cell.

CAPILLARY NETWORK

Pitts Schiller Thompson

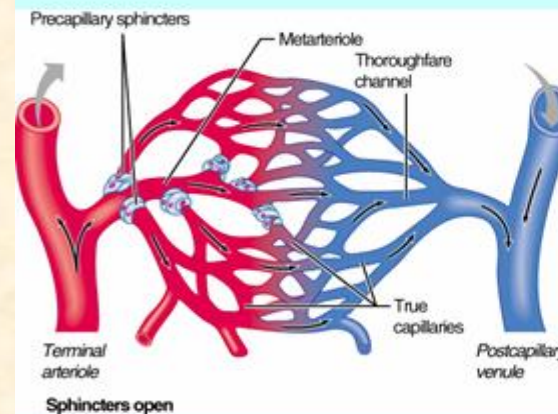
Capillaries



- Allow exchange of nutrients and wastes between the blood and the tissue cells
- Capillary structure - simple squamous epithelium
 - basal lamina - connective tissue
 - endothelial cells
- Details of structure determine specific functions

Vessel Structure - Capillaries

- Microcirculation - located between arteries and veins
- Found in almost every tissue in the body
 - the higher the metabolic activity, the more capillaries in a tissue
 - skeletal muscle has many capillaries (> 600/mm²)
 - epidermis, cartilage and tooth enamel have none



REASONS FOR WARMING UP

PSYCHOLOGICAL

1. Team focus - strategy
2. Familiarisation to environment
3. Rehearsal effect for up coming event - S/R , Turns, Feel
3. Mental rehearsal

SWIM DOWN

Swim Down to be taught

1. Control - 100% coach
2. Semi Controlled - 50% coach
3. No Control - Swimmer control

Components of Swim Down

- 1 Active recovery
(Specific to event)
2. Nutrition
- 3 Stretching
- 4 sleep / rest

REASONS FOR SWIM DOWN

PHYSIOLOGY

1. To Flush out the muscle tissues of
 - " Inorganic phosphates
 - " Hydrogen ions
 - " Lactate

Intensity of the swim down influences how quickly this Removal takes place.

Distance	Duration	Intensity
Sprinter 50 -100	25 min	Easy (120 -130 HR)
Middle Distance 200 -400	20 min	Easy - Moderate (130 - 140 HR)
Distance 800 +	10 - 15 min	Moderate (140 - 150 HR)

REASONS FOR SWIM DOWN

PHYSIOLOGY

2. Nutrition

Primary source of fuel is carbohydrate - comes from

- Blood Sugar
- Glycogen

" Glycogen is used during hard physical activity.

" Glycogen stores must not be depleted.

" "Window of opportunity " Glycogen replacement

- High carb. /moderate protein
immediately after heats
immediately after finals
immediately after swim down

** Substantial = 1.2 / 1.5 g per kg body weight.

REASONS FOR SWIM DOWN

PHYSIOLOGY

3. Stretching

Important for the recovery process

- increases blood flow
- Stimulates flow of amino acids
- reduce injury

4. Sleep

The majority of the body's muscle rebuilding and repair is done during sleep.

Where a pool does not have a warm up facility do active recovery on land - increase blood flow

- stretching
- skipping
- jogging