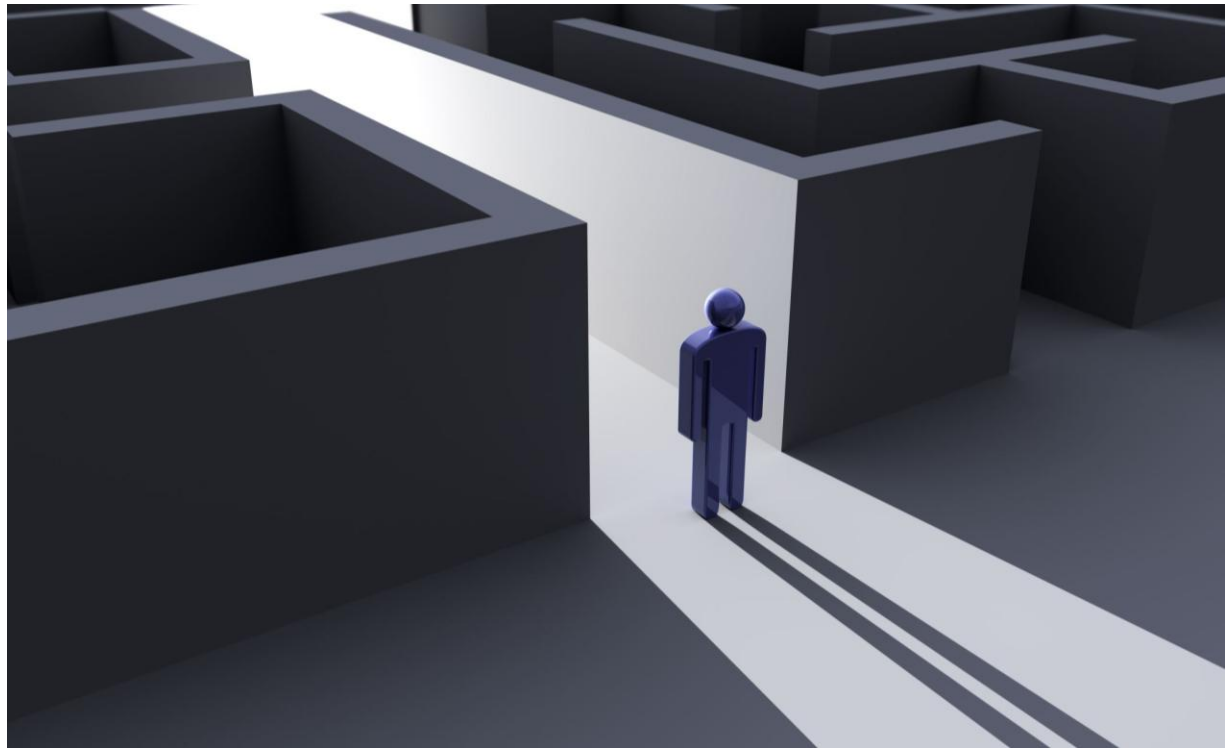
DYNAMIC STRETCHING

PHYSICAL EDUCATION

LESSON OBJECTIVES:

- THE IMPORTANCE OF DYNAMIC STRETCHING IN RELATION TO THE BODY AND PHYSICAL ACTIVITY.
- IDENTIFYING THE MAJOR MUSCLES GROUPS AND THEIR RESPECTIVE LOCATIONS.
- UNDERSTAND HOW THE MAJOR MUSCLES GROUPS ARE AFFECTED BY DYNAMIC STRETCHING.
- IDENTIFY THE PHYSICAL COMPONENT THAT DYNAMIC STRETCHING IS RELATED TO.

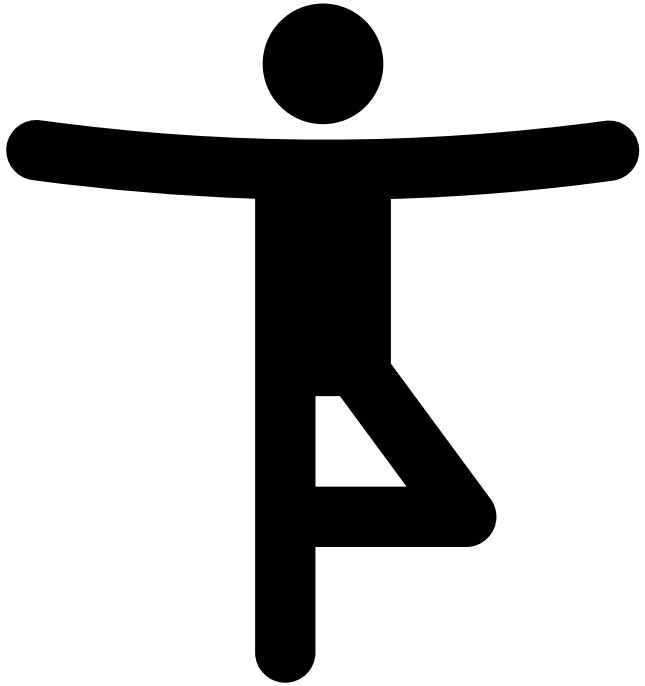


WHAT MAJOR COMPONENT DOES DYNAMIC STRETCHING FALL UNDER IN PYHSICAL EDUCATION?

FLEXIBILITY

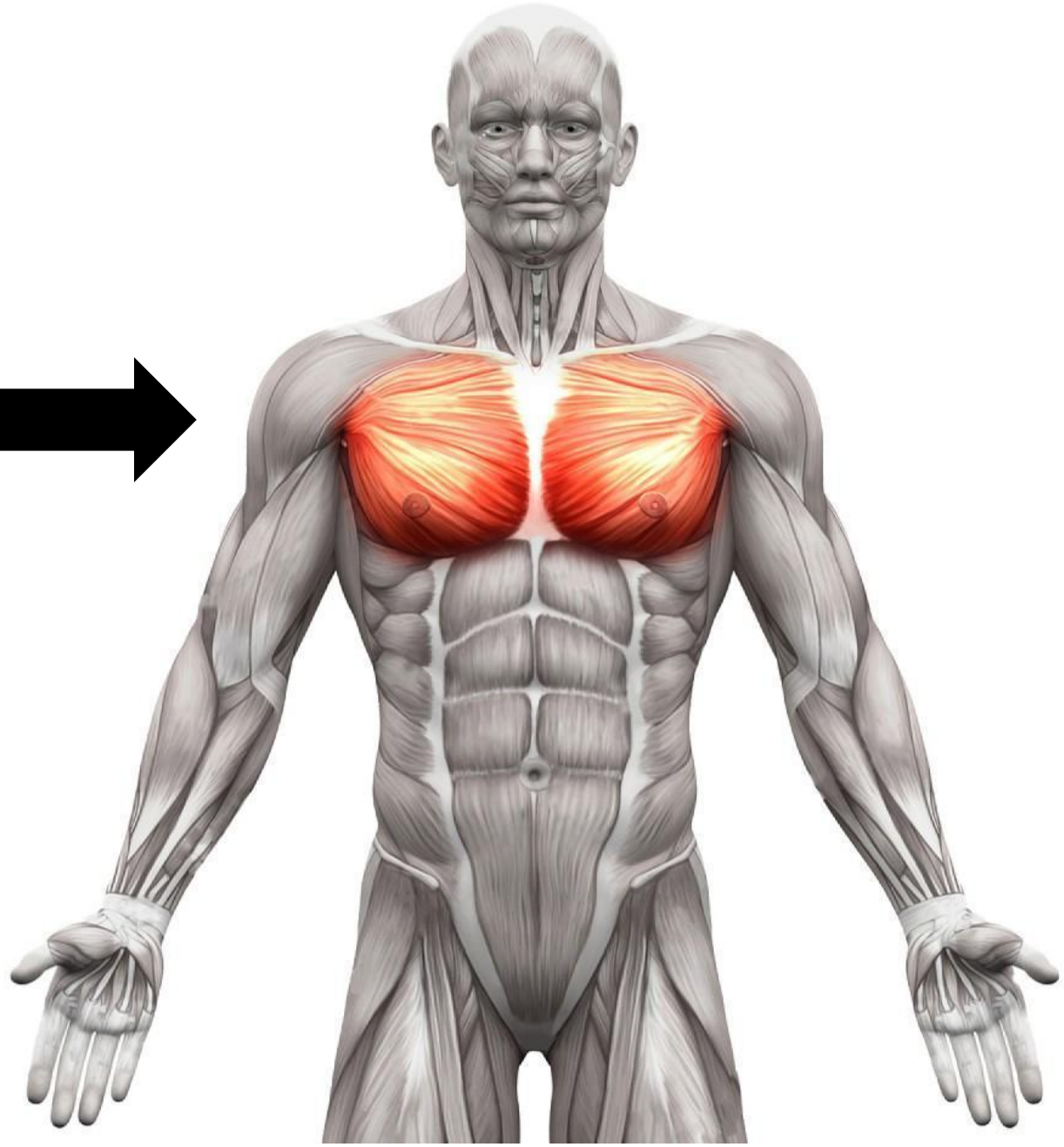
FLEXIBILITY

The ability of muscles and joints to move through a full range of motion.

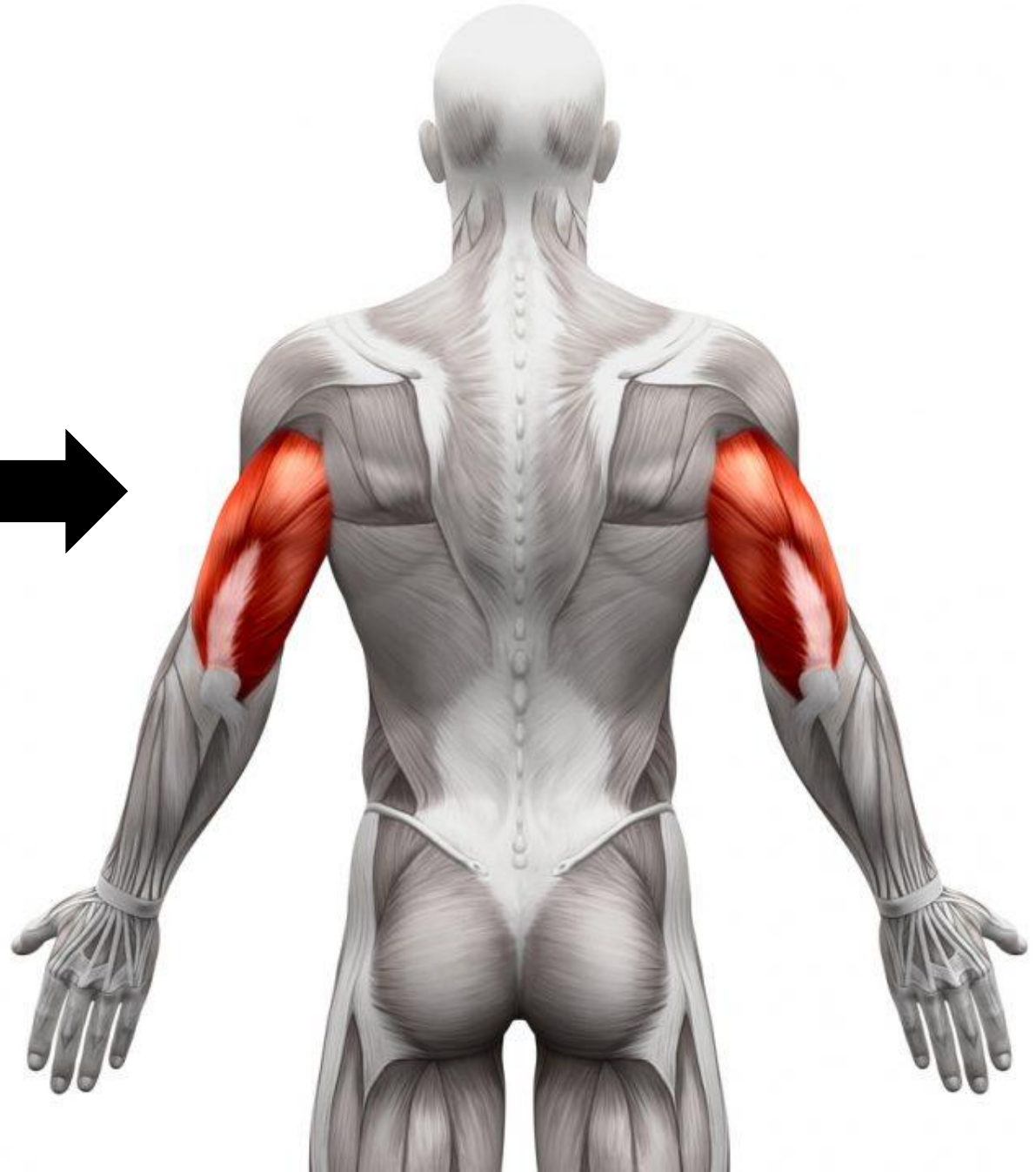


MAJOR MUSCLE RECAP

PECTORALIS

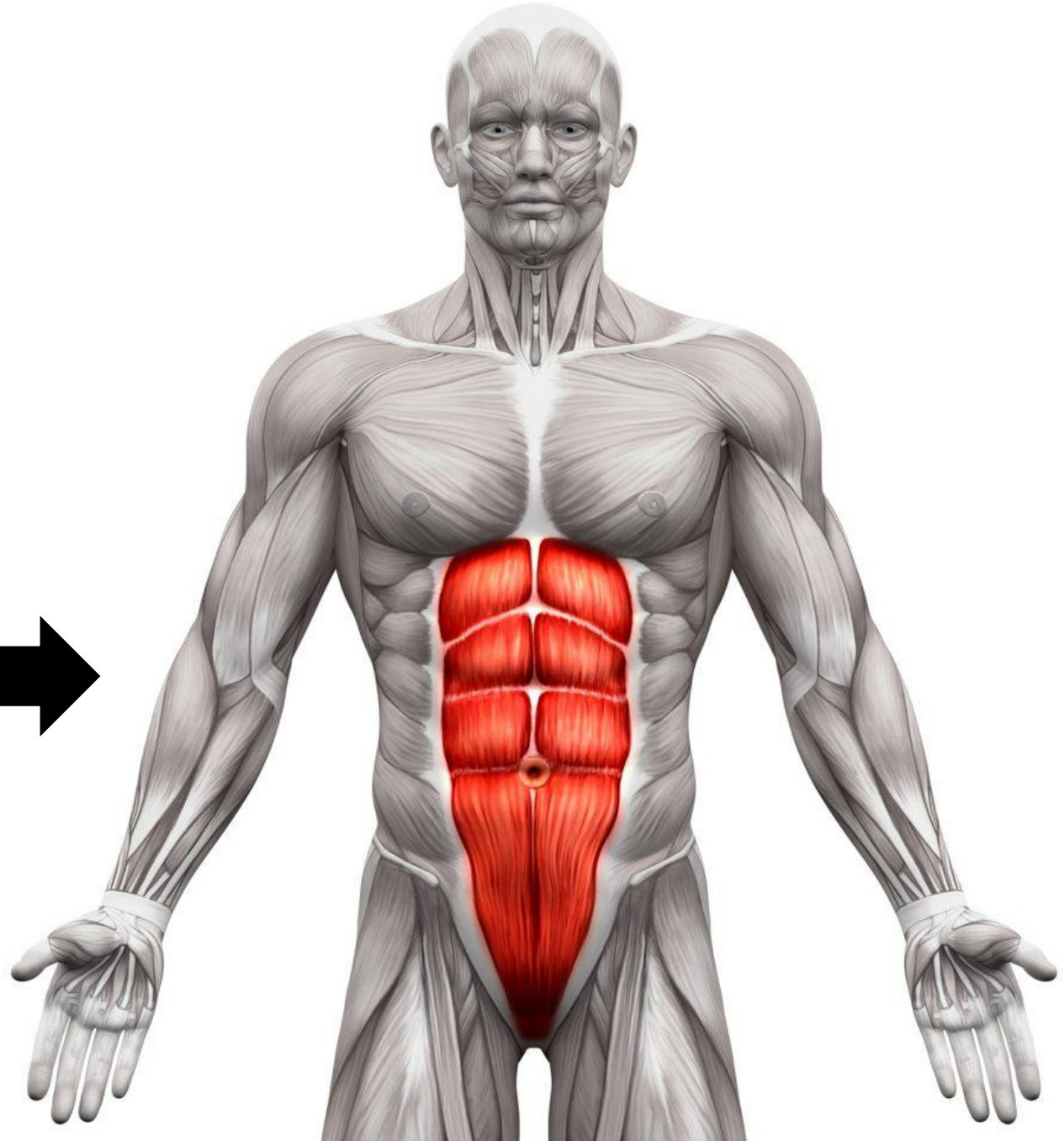


TRICEPS

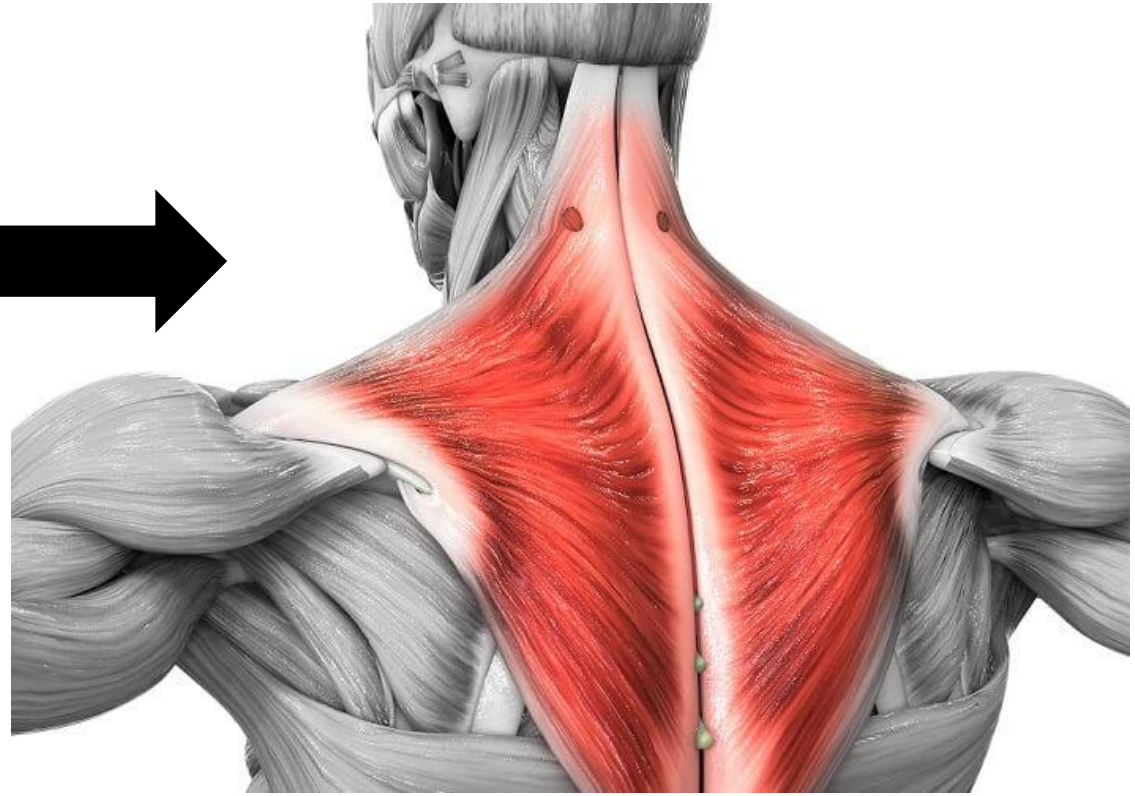


HAMSTRINGS

ABDOMINALS



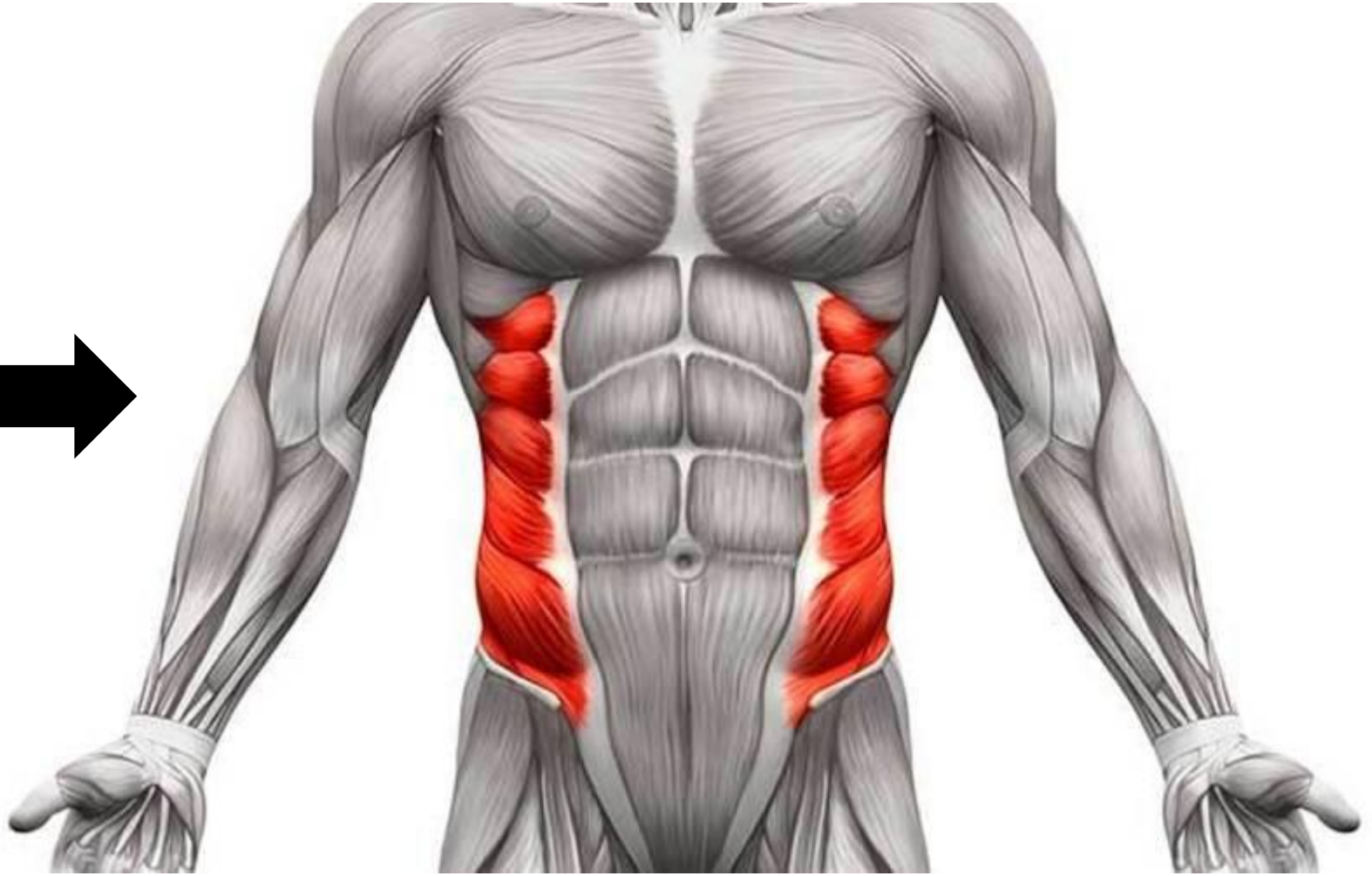
TRAPEZIUS/TRAPS



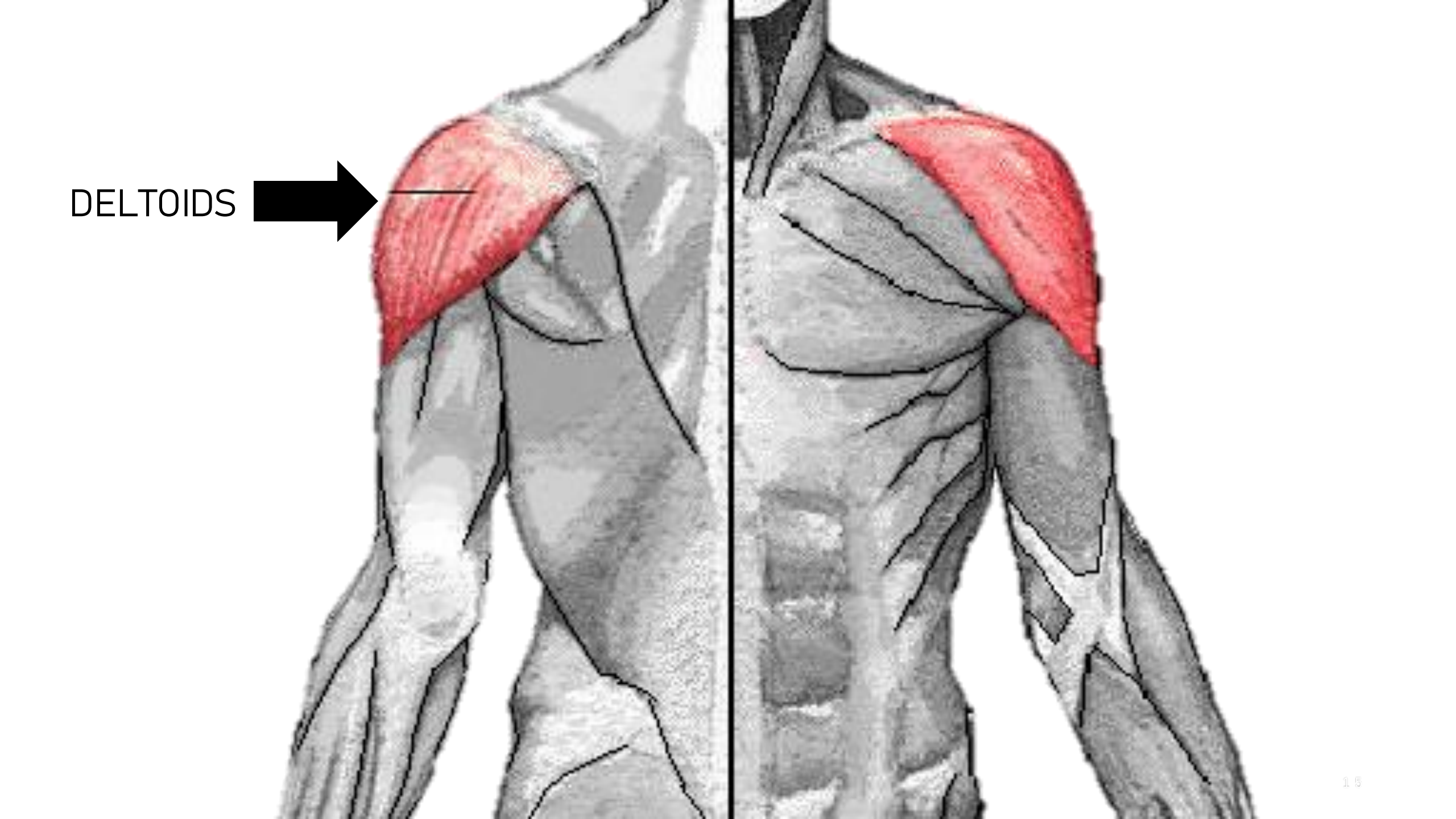
BICEPS

ERECTOR SPINAE

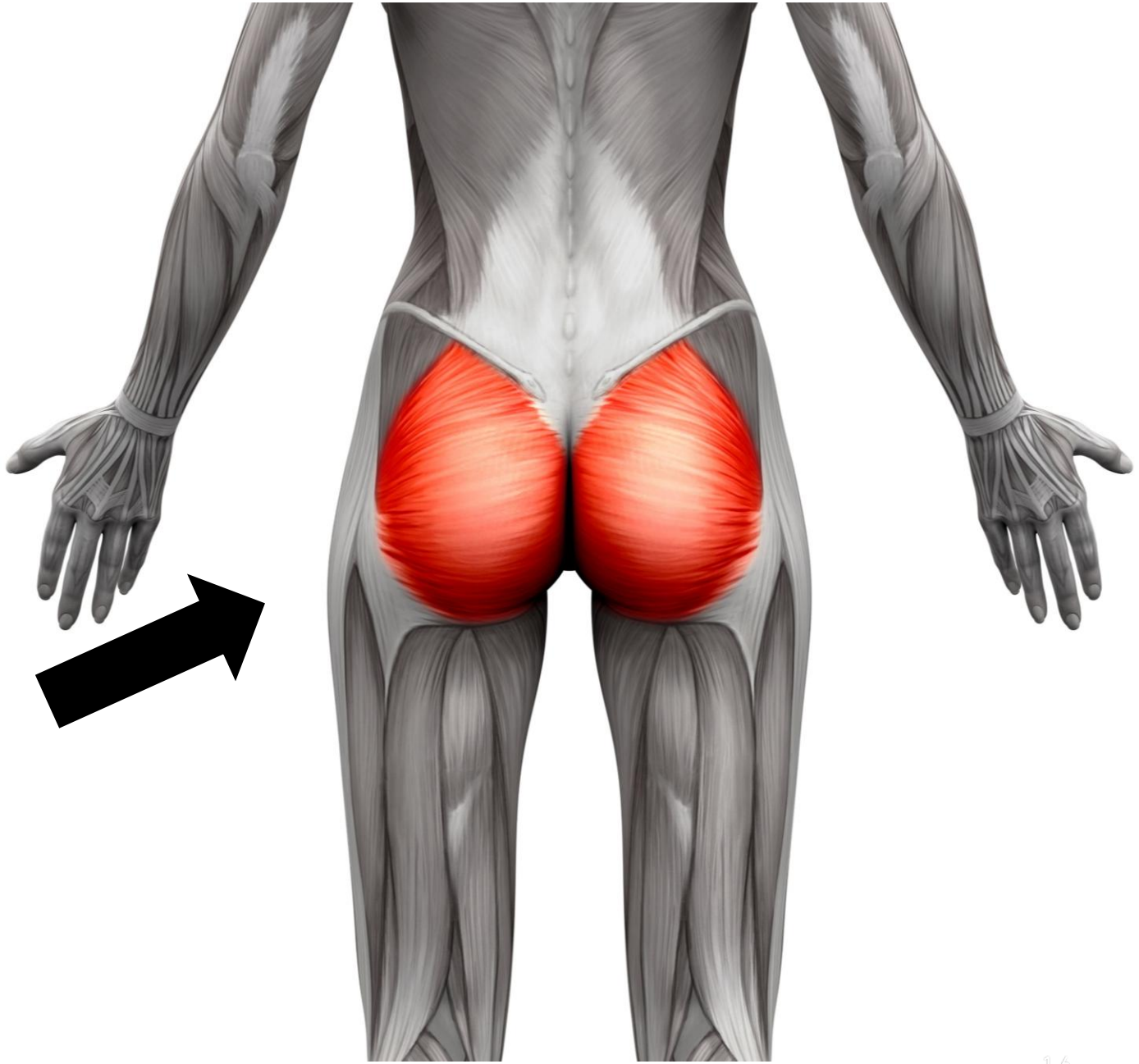
OBLIQUES



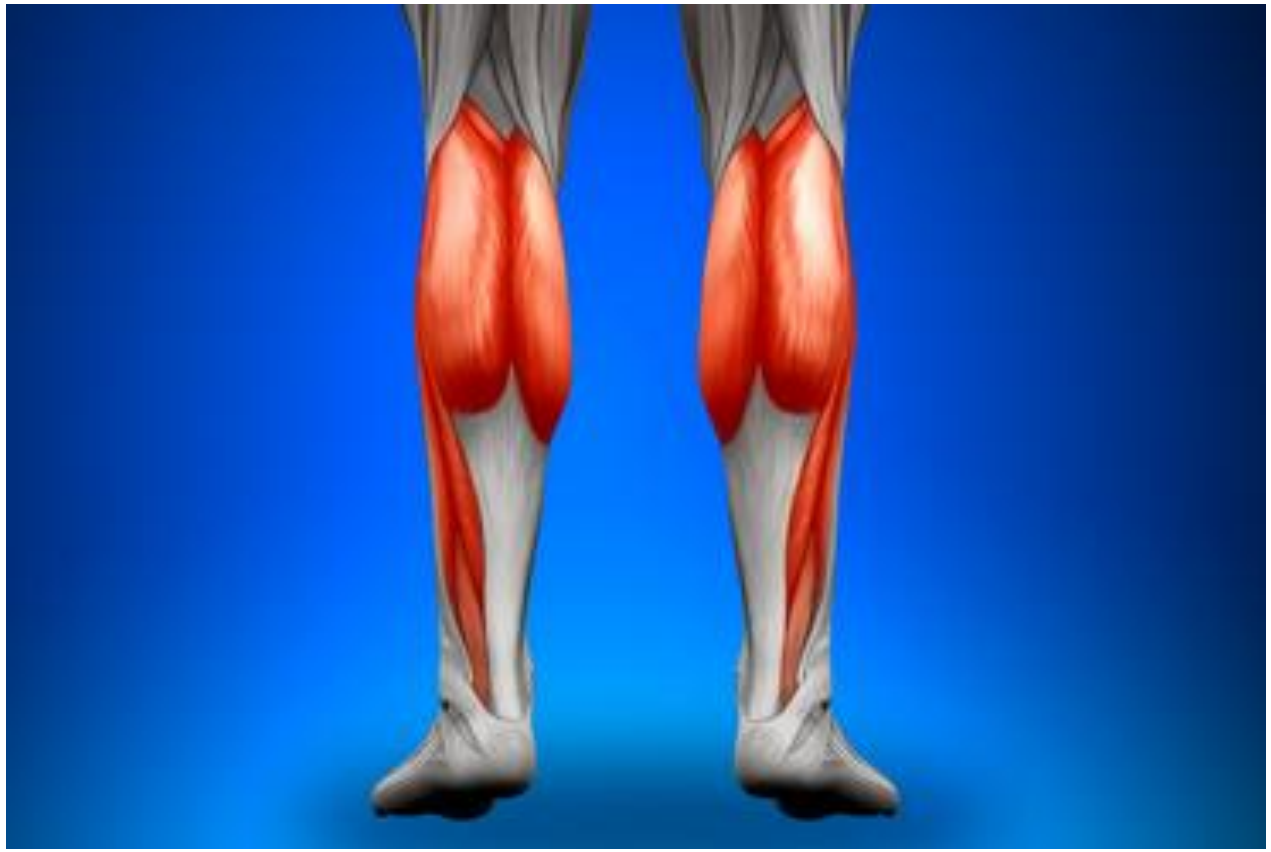
LATS


DELTOIDS

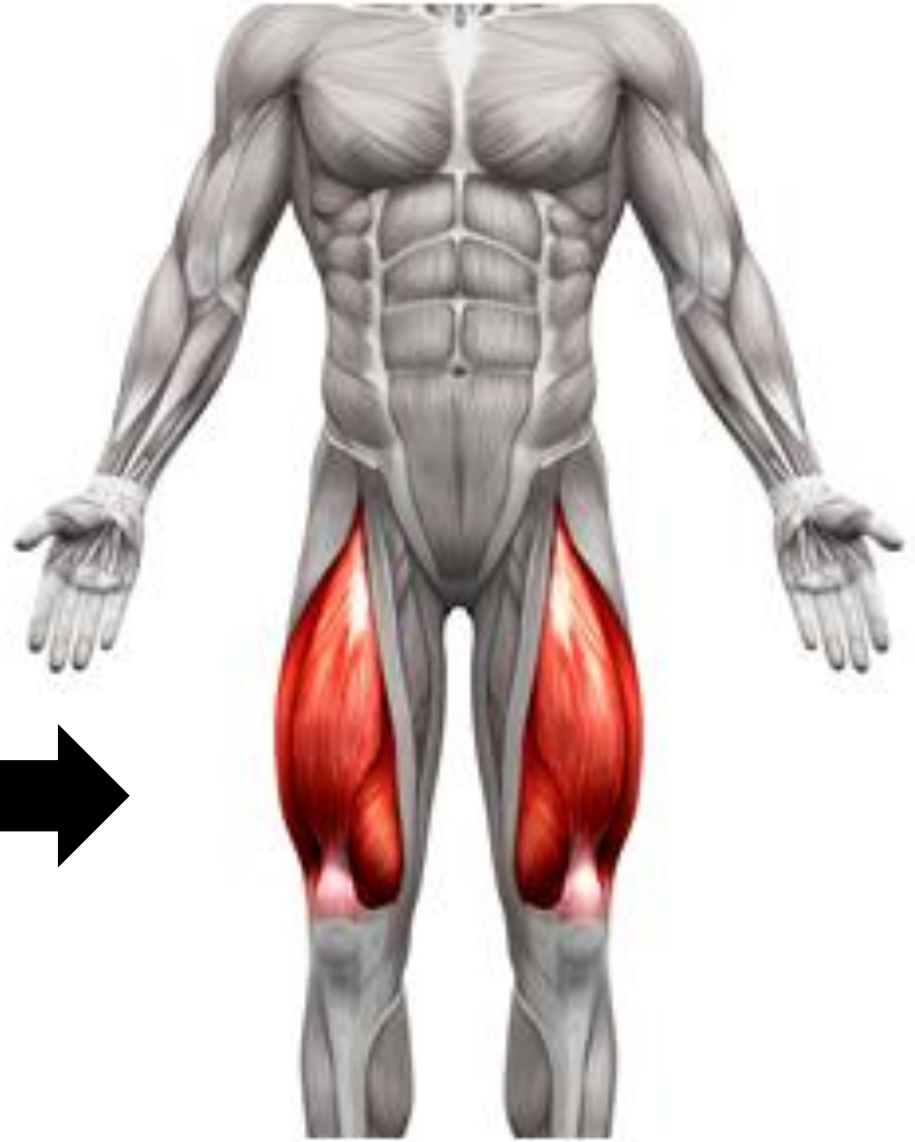
GLUTES

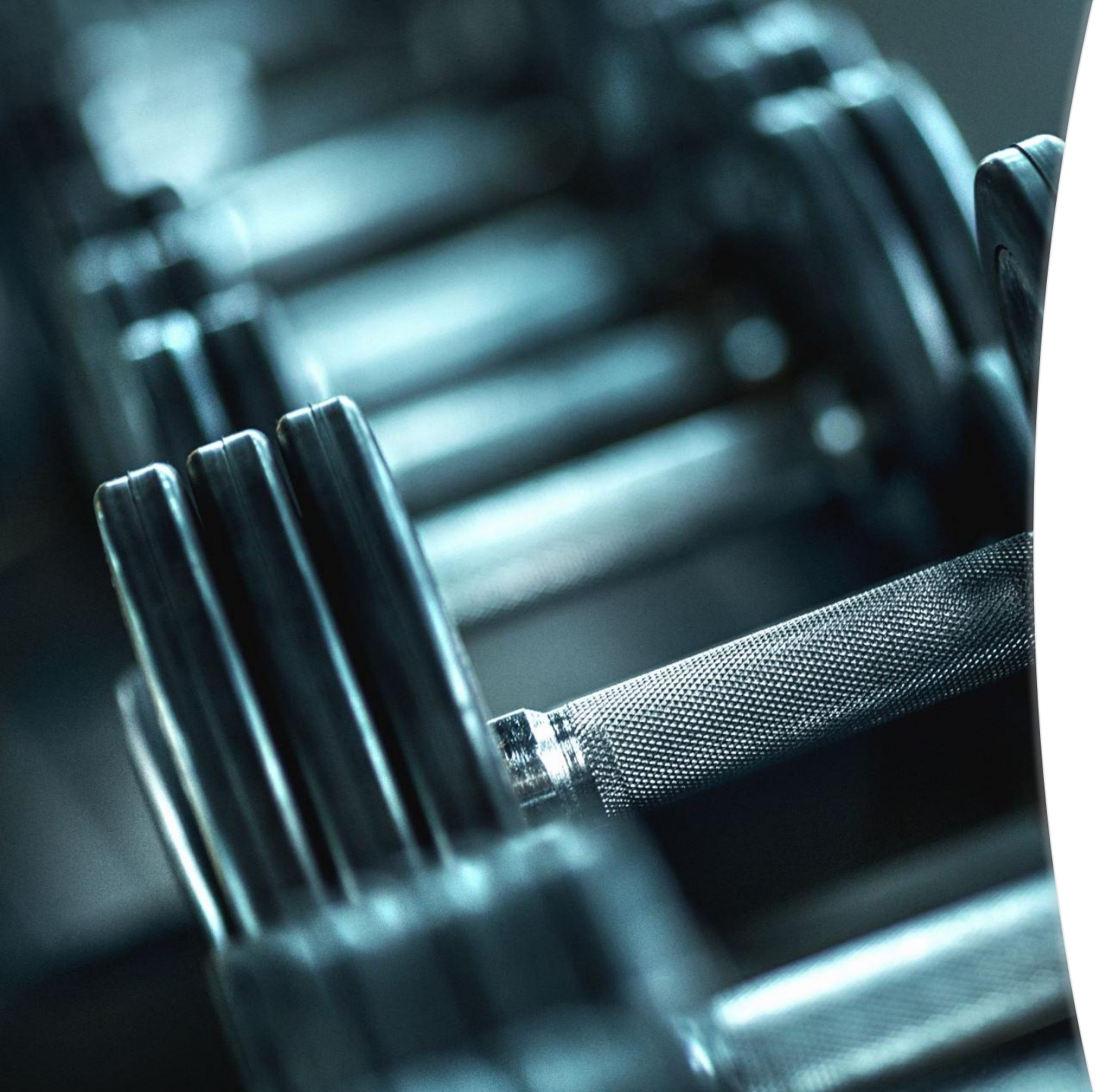


CALVES



QUADRICEPS/QUADS





DYNAMIC vs. STATIC STRETCHING

- DYNAMIC STRETCHING INVOLVES ACTIVE MOVEMENT WHILE SIMULATNEOUSLY STRETCHING THE FOCUSED MUSCLE GROUP
- STATIC STRETCHING INVOLVES HOLDING A STRETCH IN A STATIONARY POSITION
- BOTH STRETCHING STYLES ARE COMPLEMENTARY TO THE PREPARATION AND RECOVERY OF PHYSICAL ACTIVITY

INTRODUCTION TO DYNAMIC STRETCHING

- DYNAMIC STRETCHING IS A FORM OF STRETCHING THAT INVOLVES ACTIVELY MOVING YOUR MUSCLES AND JOINTS THROUGH A CONTROLLED RANGE OF MOTION. IT IS PERFORMED WITH FLUID AND CONTINUOUS MOVEMENTS, GENTLY INCREASING THE STRETCH WITH EACH REPETITION.
- DYNAMIC STRETCHING IS COMMONLY USED AS PART OF A WARM-UP ROUTINE BEFORE PHYSICAL ACTIVITIES TO IMPROVE FLEXIBILITY, MOBILITY, AND CIRCULATION, WHILE ALSO PREPARING THE BODY FOR MORE INTENSE MOVEMENTS.
- DYNAMIC STRETCHING FOCUSES ON DYNAMIC MOVEMENTS THAT MIMIC THE MOTIONS OF THE ACTIVITY TO FOLLOW.

WHY IS A PROPER WARM-UP IMPORTANT?

KNOWLEDGE RECAP

A. INCREASED BLOOD FLOW: WARMING UP GRADUALLY INCREASES HEART RATE, BLOOD FLOW, AND CIRCULATION. THIS HELPS DELIVER OXYGEN AND NUTRIENTS TO MUSCLES, PREPARING THEM FOR THE INCREASED DEMAND THAT EXERCISE PLACES ON THEM.

B. IMPROVED MUSCLE FUNCTION: A WARM-UP HELPS INCREASE MUSCLE TEMPERATURE, MAKING MUSCLES MORE PLIABLE AND RESPONSIVE. THIS ENHANCES MUSCLE CONTRACTILITY AND REDUCES THE RISK OF MUSCLE STRAINS.

C. ENHANCED NERVE FUNCTION: A WARM-UP ALSO IMPROVES NERVE FUNCTION AND RESPONSIVENESS. THIS IS IMPORTANT FOR THE COORDINATION AND TIMING OF MUSCLE CONTRACTIONS, LEADING TO BETTER MOTOR CONTROL AND PERFORMANCE.

D. MENTAL PREPARATION: WARMING UP MENTALLY PREPARES INDIVIDUALS FOR EXERCISE. IT HELPS SHIFT FOCUS FROM DAILY TASKS TO THE UPCOMING PHYSICAL ACTIVITY, ENHANCING CONCENTRATION AND READINESS TO PERFORM.

E. INJURY PREVENTION: A PROPER WARM-UP GRADUALLY PREPARES THE BODY FOR MORE INTENSE ACTIVITY, REDUCING THE RISK OF SUDDEN, JARRING MOVEMENTS THAT COULD LEAD TO INJURY. IT HELPS PREPARE JOINTS, LIGAMENTS, AND TENDONS FOR THE STRESS OF EXERCISE.

IMPORTANCE OF DYNAMIC STRETCHING

- IMPROVED BLOOD CIRCULATION: Dynamic stretching increases blood flow to the muscles and tissues. This enhanced circulation delivers more oxygen and nutrients to the muscles, making them more pliable and ready for action.
- ENHANCED RANGE OF MOTION (ROM): Dynamic stretching helps improve joint flexibility and range of motion. By moving joints through their full range in a controlled manner, it helps increase the length and flexibility of muscles and connective tissues.
- INCREASED MUSCLE TEMPERATURE: Active movements during dynamic stretching raise muscle temperature. Warmer muscles are more elastic and less prone to injury, allowing them to stretch further and more comfortably.
- NEUROMUSCULAR ACTIVATION: Dynamic stretching stimulates the nervous system, sending signals to the muscles to be ready for movement. This activation enhances muscle coordination and responsiveness, leading to better performance.

- PREVENTION OF INJURY: A proper dynamic stretching routine primes muscles and tendons to handle the demands of physical activity. This reduces the risk of muscle strains, tears, and other injuries that can occur when muscles are not adequately prepared.
- MUSCLE COORDINATION: Dynamic stretching involves multiple muscle groups working together in a coordinated manner. This helps improve overall movement patterns and coordination, which is particularly important for activities requiring agility and quick direction changes.
- ELEVATED HEART RATE: Dynamic stretching gradually increases the heart rate, contributing to the overall warm-up process. This cardiovascular effect prepares the cardiovascular system for the demands of exercise.
- MENTAL PREPARATION: Engaging in dynamic stretching also helps mentally prepare for physical activity. It shifts your focus to the task at hand and helps create a mind-muscle connection, enhancing performance.

WHAT IS THE YELLOW ARROW POINTING TO?

WHAT MAJOR PHYSICAL COMPONENT IS THIS MUSCLE IS CONNECTED TO?

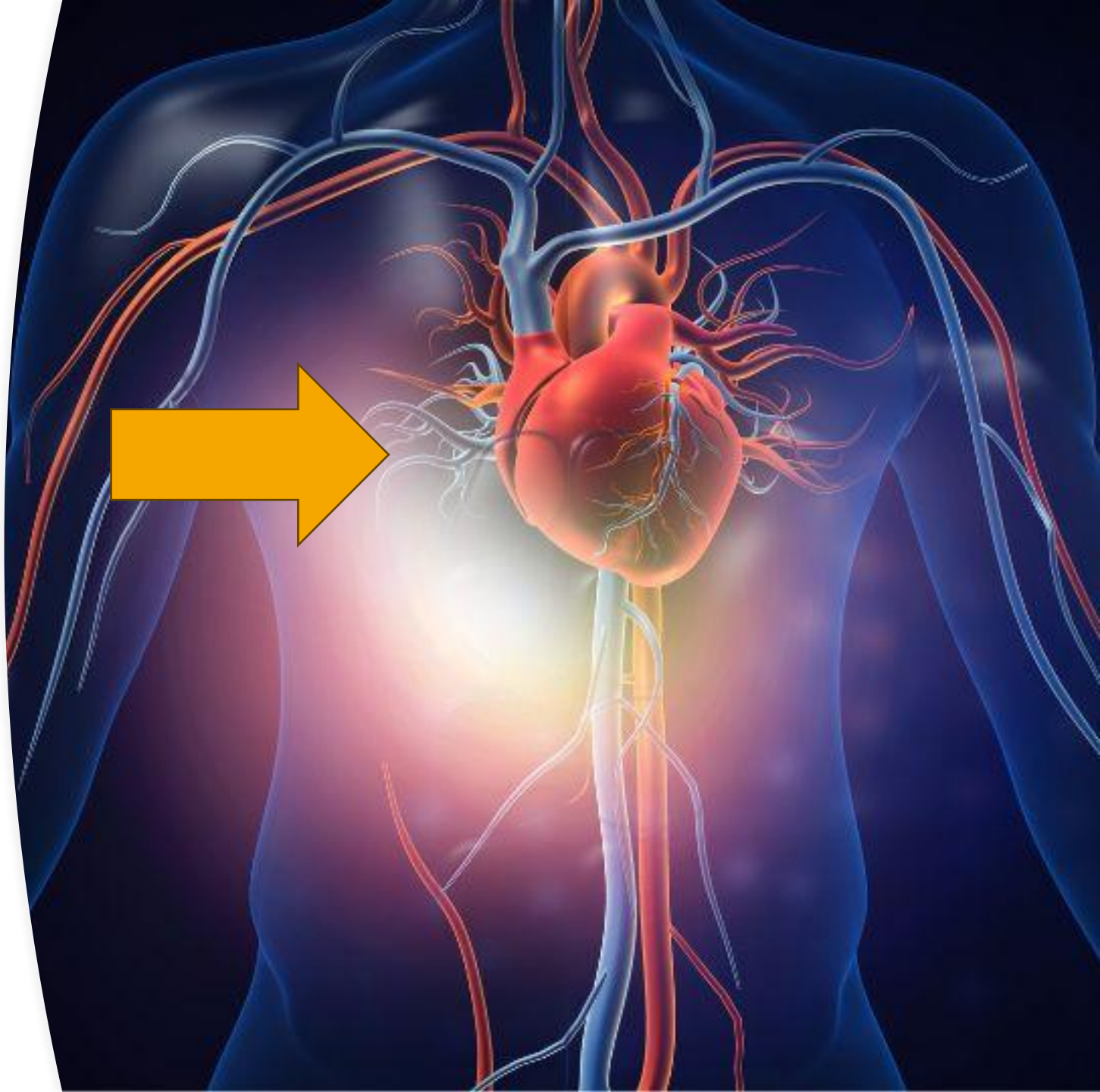
A. CARDIOVASCULAR

B. MUSCULAR STRENGTH

C. MUSCULAR ENDURANCE

D. BODY COMPOSITION

E. FLEXIBILITY



INCORPORATING DYNAMIC STRETCHES

- WHEN TO INCORPORATE:
  - AS A PRE-WORKOUT ROUTINE
  - PRIOR TO STRENGTH TRAINING
  - IDEAL FOR SPORTS PREPARATION
  - BEFORE CARDIOVASCULAR EXERCISE

CAN YOU NAME 3 CARDIOVASCULAR EXERCISES?


arena


MLB
NYM
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CAN YOU NAME SOME ATHLETES THAT INCORPORATE DYNAMIC STRETCHING BEFORE THEIR GAMES?

DYNAMIC STRETCHING MYTHS

- DOES NOT DECREASE STRENGTH
- DOES NOT CAUSE MUSCLE TIGHTNESS
- DOES NOT REPLACE WARM-UP

TYPES OF DYNAMIC STRETCHES

- LEG SWINGS (FRONT/BACK, SIDE-TO-SIDE)
- ARM CIRCLES
- HIP ROTATIONS
- TORSO TWISTS
- WALKING LUNGES WITH ROTATION
- HIGH KNEES

CAN YOU LIST ANY NOT NAMED ON THIS LIST?

DOES DYANMIC STRETCHING ENHANCE PERFORMANCE AND FLEXIBILITY?

YES.

ENHANCED PERFORMANCE:

- INCREASED MUSCLE ACTIVATION
  - Dynamic stretching activates the muscles and nervous system, which leads to improved muscle responsiveness. This heightened activation translates to better muscular contraction and coordination during physical activities, resulting in more efficient and powerful movements.
- IMPROVED BLOOD FLOW
  - The dynamic movements involved in dynamic stretching increase blood circulation to the muscles. This helps supply more oxygen and nutrients to the muscles, enhancing their ability to perform optimally during exercise.
- OPTIMIZED RANGE OF MOTION
  - Dynamic stretching promotes a full range of motion in joints and muscles. This increased range allows for a greater degree of movement during exercise, leading to more dynamic and efficient motions.
- ENHANCED NEUROMUSCULAR COMMUNICATION
  - Dynamic stretching improves the communication between the nervous system and muscles. This improved connection enhances proprioception and overall body awareness, leading to better control over movements and improved balance.

ENHANCED FLEXIBILITY:

- IMPROVED MUSCLE ELASTICITY
  - Dynamic stretching involves rhythmic, controlled movements that gradually increase muscle length. This contributes to improved muscle elasticity, allowing muscles to stretch and contract more effectively.
- INCREASED JOINT FLEXIBILITY
  - By moving joints through their full range of motion, dynamic stretching helps improve joint mobility. This can help prevent stiffness and maintain joint health over time.
- MUSCLE FIBER ALIGNMENT
  - Dynamic stretching encourages muscle fibers to align more efficiently along the lines of force. This alignment contributes to better muscle function, less resistance during movement, and reduced risk of injury.
- REDUCED MUSCLE TENSION
  - Regular dynamic stretching can help reduce muscle tension and tightness. This can lead to greater comfort during movement and decreased chances of muscle strains or pulls.

SAFETY AND GUIDELINES: (DYNAMIC STRETCHING)

1. WARM UP BEFORE DYNAMIC STRETCHING.
2. AVOID BOUNCING OR JERKING MOVEMENTS DURING STRETCHING.
3. BREATH DEEPLY AND CONSISTENTLY DURING STRETCHES.
4. LISTENING TO YOUR BODY AND AVOID EXCESSIVE DISCOMFORT OR PAIN.

- START SLOWLY, INCREASE INTENSITY GRADUALLY
- AVOID OVERSTRETCHING
- CONSULT A PROFESSIONAL IF IN DOUBT

STRETCHING SHOULD NOT BE PAINFUL.