

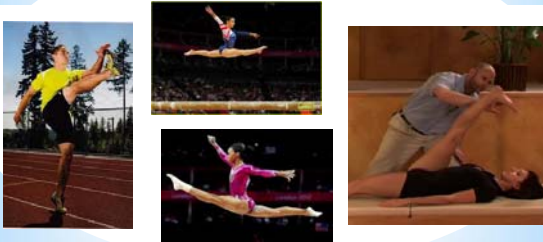
Flexibility



The ability to move a joint through normal range of motion(ROM).



Range of Motion is the amount of movement that you can make at a joint.



FLEXIBILITY IS . . .

ADAPTABLE

Flexibility will increase in response to a regular program of stretching.

Flexibility will decrease in response to inactivity.

Increasing the flexibility in a joint can increase the flexibility in a similar joint.

- A. Yes
- B. No

FLEXIBILITY IS . . .


SPECIFIC

FLEXIBILITY IN ONE JOINT DOESN'T NECESSARILY MEAN GOOD FLEXIBILITY IN ANOTHER JOINT.

The Principle of Overload and Principle of Progression can be applied to flexibility.

A. True
 B. False

How can you apply the principles of overload, progression and specificity to flexibility?



Overload:
stretch your muscles farther than you normally do

Progression:
stretch farther as you gain flexibility over time.



Specificity:
stretch all muscles that need stretching

BENEFITS OF GOOD FLEXIBILITY:

Prevents Injuries Joint Health
Decrease Muscle Soreness Good Posture
Improve Performance Relaxation
Relief for Aches and Pains
Prevention of Low Back Pain and Back Injuries

Which population tends to be more flexible?

A. Young Females
B. Young Males
C. Older Females
D. Older Males
E. No significant difference



FEMALES
YOUNG PEOPLE

What is the difference between Dynamic and Static Stretching?

- A. Static Stretching is related to fast motion
- B. Dynamic Stretching is a continuously holding a muscle at the full range of motion for 30 seconds
- C. Static is holding a stretch and Dynamic is continuous movement

CATEGORIES OF FLEXIBILITY:

STATIC

HOLDING A STRETCH AT ONE END OF THE JOINT'S RANGE OF MOTION (ROM)

DYNAMIC

CONTINUOUS STRETCHING WITH MOVEMENT THROUGH A JOINT'S ROM

STRETCHING TECHNIQUES TO DEVELOP FLEXIBILITY



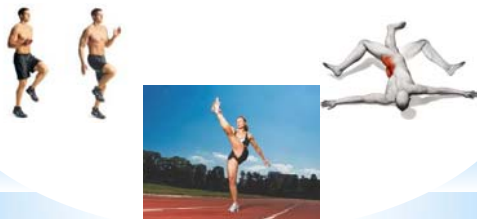
STATIC STRETCHING

Stretch to a gradual pull and hold 10 to 30 seconds.



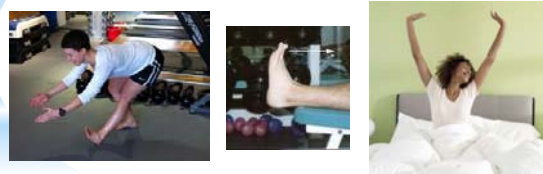
DYNAMIC STRETCHING

CONTINUOUS MOVEMENT THROUGH A JOINT'S RANGE OF MOTION. Examples: SHOULDER, HIP



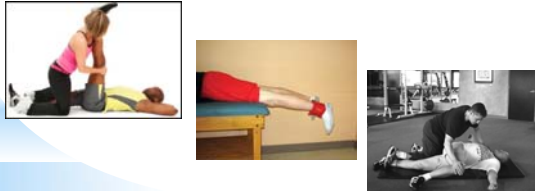
ACTIVE STRETCHING

A MUSCLE IS STRETCHED BY CONTRACTING THE OPPOSITE MUSCLES. Example: contract shin to stretch the calf muscles



PASSIVE STRETCHING

A STRETCH PROVIDED BY AN OUTSIDE FORCE, SUCH AS A PARTNER, GRAVITY, OR WEIGHT, WHILE THE MUSCLES STAY RELAXED



PNF

*Proprioceptive
Neuromuscular
Facilitation*

PARTNER ASSISTED STRETCHING
WHEREAS A MUSCLE CONTRACTION IS
FOLLOWED BY A RELAXATION AND
FURTHER ASSISTED STRETCH.



Ballistic Stretching

A bouncing stretch where the muscle is forced beyond its normal range of motion.

Not recommended – could cause tearing to the muscle fibers/tendons



Static stretching exercises are safer because you are less likely to stretch too far and injure yourself



A balanced exercise program should include both strength and flexibility exercises. This will ensure that...

- Muscles can apply equal force on all sides of the joint
- Muscles can maintain normal range of motion
- Muscle bond condition is prevented

FOAM ROLL EXERCISES

- Myofascial release (used for breaking up adhesions and scar tissue)
- Deep tissue massage
- Hard to stretch areas (ex. IT band)



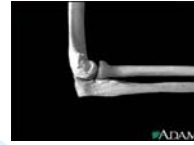
GUIDELINES FOR FLEXIBILITY TRAINING:

- STRETCH WHEN THE MUSCLES ARE WARM
- STRETCH TO THE POINT OF MILD DISCOMFORT, NOT PAIN
- HOLD A STRETCH 10 TO 30 SECONDS, REST FOR 30 TO 60 SECONDS, REPEAT
- STRETCH BOTH SIDES OF THE BODY
- INCREASE INTENSITY AND DURATION GRADUALLY OVER TIME
- IMPROVED FLEXIBILITY TAKES TIME
- STRETCH IS NON-COMPETITIVE

SKELETAL JOINT

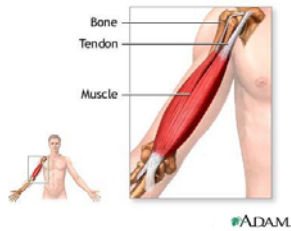
THE AREA WHERE TWO BONES CONNECT

- 4 main types of joints in human body.



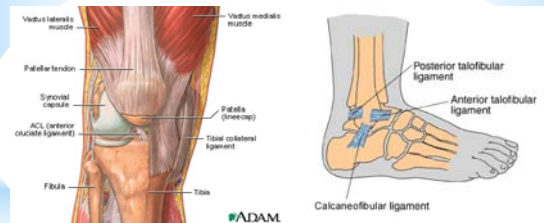
TENDON

FIBROUS TISSUE THAT CONNECTS BONE TO MUSCLE AT A JOINT



LIGAMENT

FIBROUS TISSUE THAT CONNECTS BONE TO BONE AT A JOINT



ACL Tear