

# *Introduction Cards*

Last Name, First Name, Nickname, Phone, e-mail

Major/Undeclared/Area of Interest

Academic Status: Fr, So, Jr, Sr, PB, MS, PhD, CEP

Professional Objective: eg, Physical Therapist/TBA?

Hometown, Birthplace

Prior related course work/sports?

High School, Prior Community Colleges/Universities


Family/Special Interests/Hobbies

Something unique about you? or a Secret?

Injuries/Contraindications for Exercise

# BI 199 Anatomy, Physiology & Weight Training

<http://blogs.uoregon.edu/bi199/spring-2015/>

- ✓ I. Information Cards Welcome! Practical application that's fun!... 
- II. Introduction, Outline, Format & Guidelines  
Attendance, participation, lab activities = 30%  
Weight training/fitness component = 30%  
Thematic poster presentation = 30%  
Weight training/nutrition article/media review = 10%  
Expectations = The highest possible!!
- III. Alternative Review Exercise Video Evaluation  
<http://www.mayoclinic.com/health/squat/MM00743> } Technique, source?:  
<http://www.youtube.com/watch?v=8c8zTrxaXYQ> } .edu, .org, .gov vs. .com?
- IV. Anatomy vs Physiology Structure vs. Function
- V. Levels of Organization?
- VI. Tissue Types?
- VII. Joints? Where 2 Bones Meet!  
Muscles? Tendons? Ligaments? Cartilage?
- VIII. Anatomical Position & Direction Terms?
- IX. Basic Action Terms?
- X. Weight Training vs Weight Lifting?

**ANATOMY**  
**STRUCTURE**  
**WHAT?**  
**WHERE?**

**VS**

**PHYSIOLOGY**

**VS**

**FUNCTION**

**VS**

**HOW?**

**VS**

**WHY?**

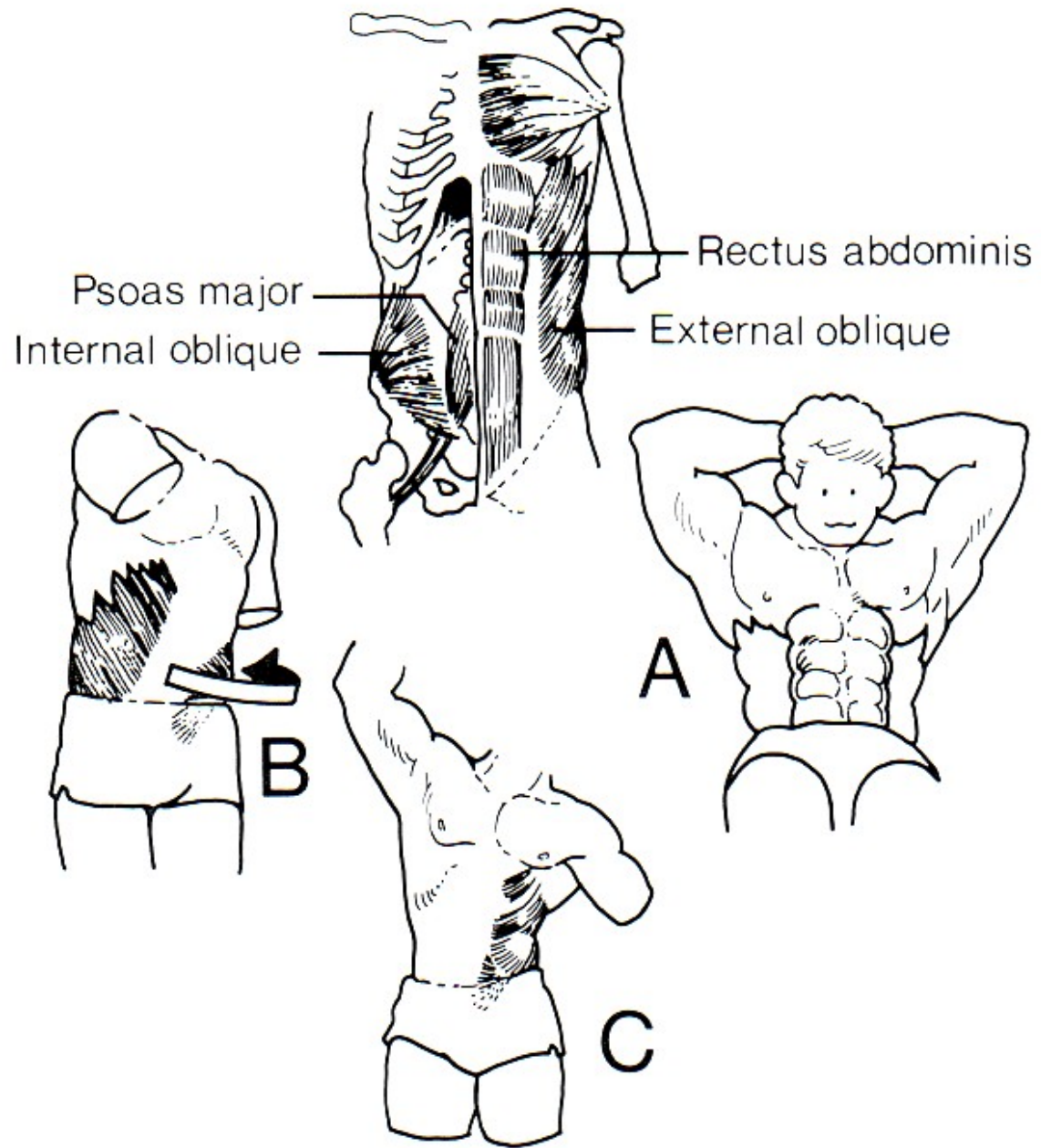


**VS**



***Structure gives rise to function!***  
***Structure determines function!***







# Body Levels of Organization

Entire Organism,  
like you & me!

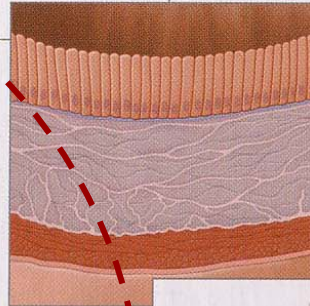
1. Molecular



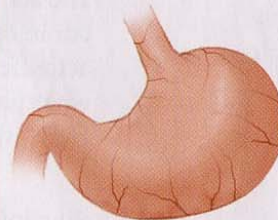
2. Cellular



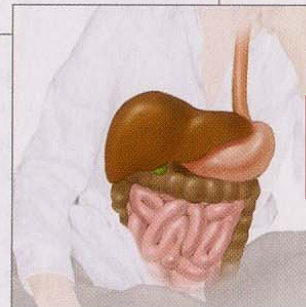
3. Tissue

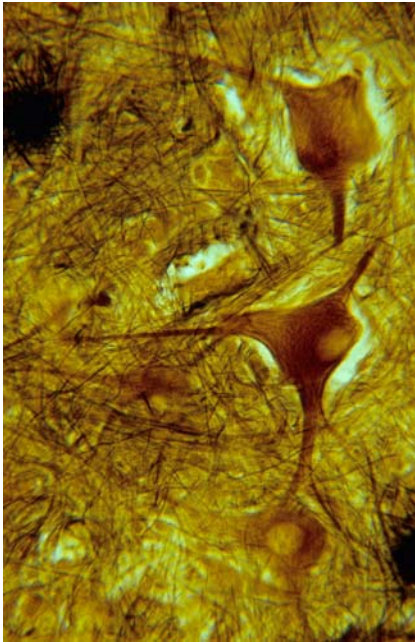


4. Organ

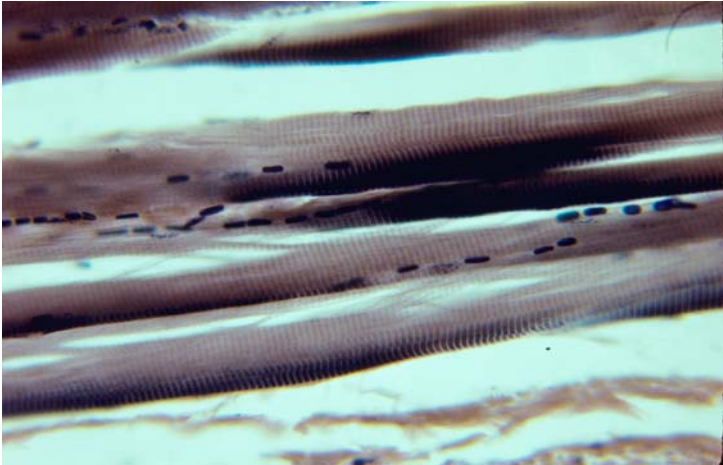


5. System

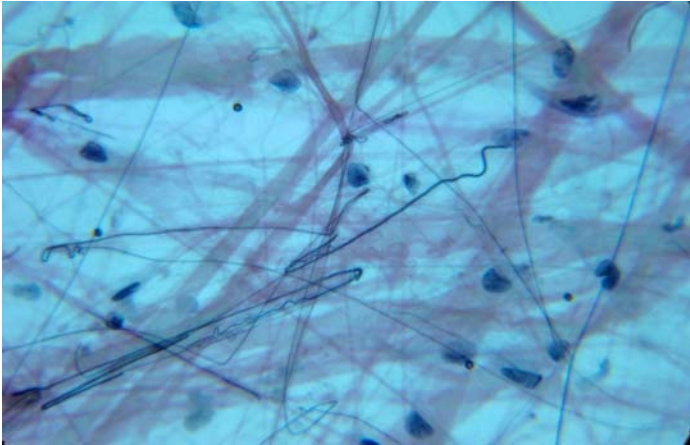




**Nerve conducts**



**Muscle contracts**

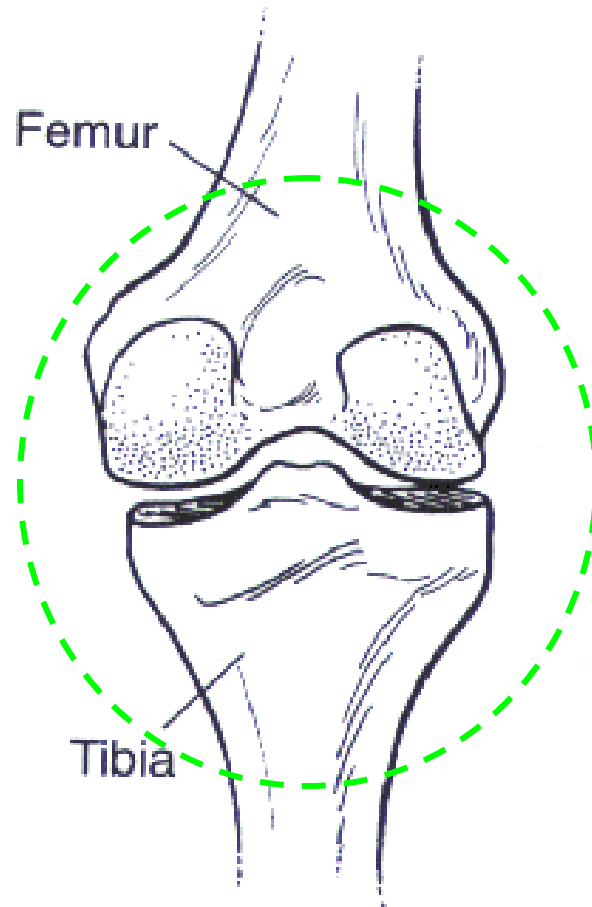


**Connective connects!!**



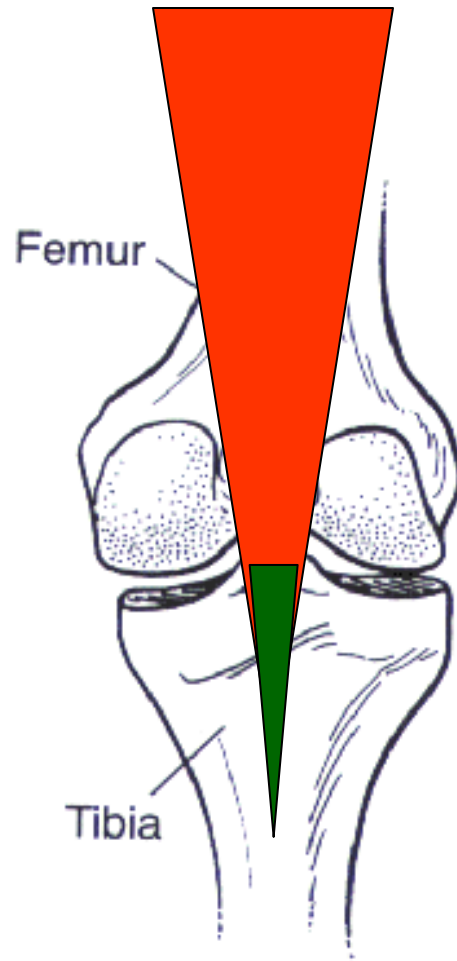
**Epithelial covers**

*Joint.* Simply a Place Where 2 Bones Meet!





# *Muscles: Cross Joints by Way of Tendons*

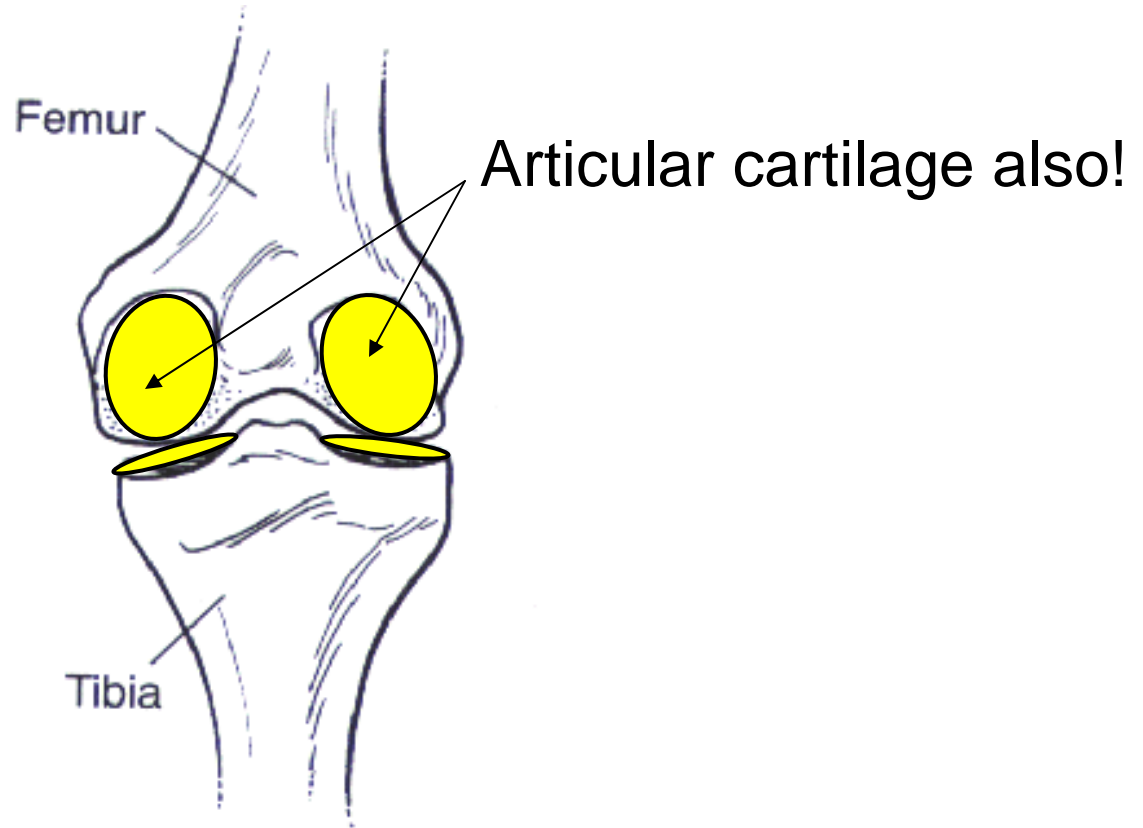


*Tendons: Staple Muscles to Bones!*

# *Ligaments: Connect Bone to Bone!*

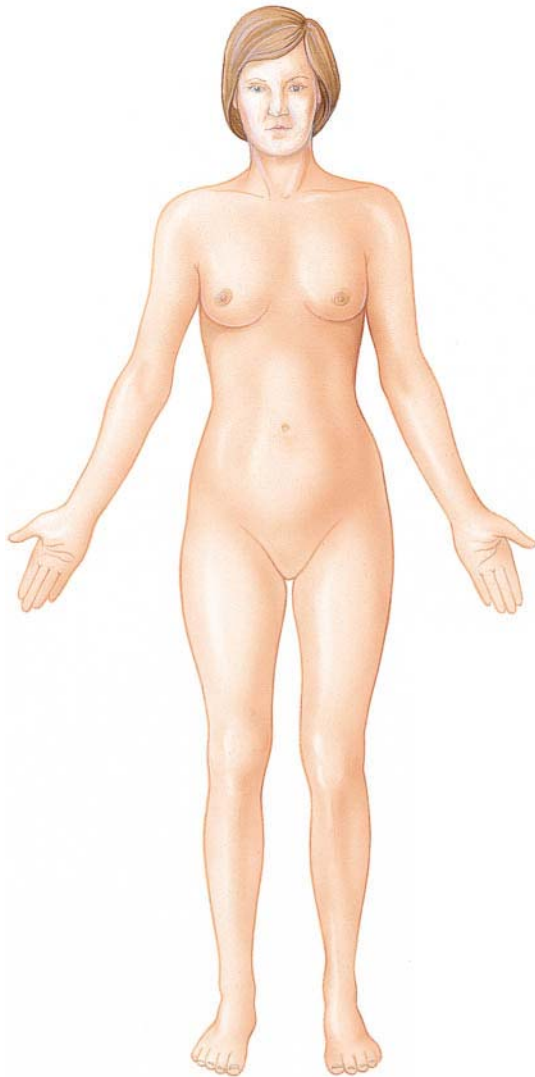


# *Cartilage*: Cushion Between Bones!



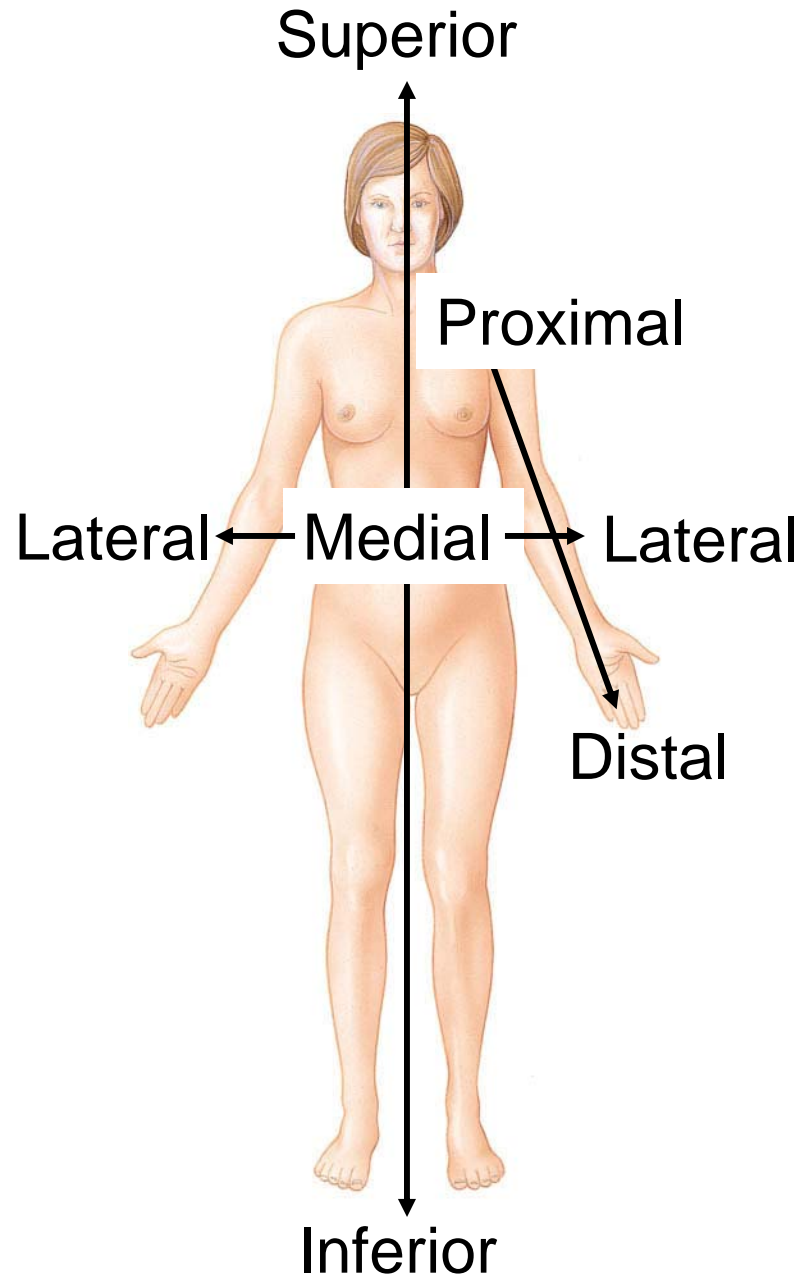
# *Anatomical Position:* Reference for Anatomy

Anterior View

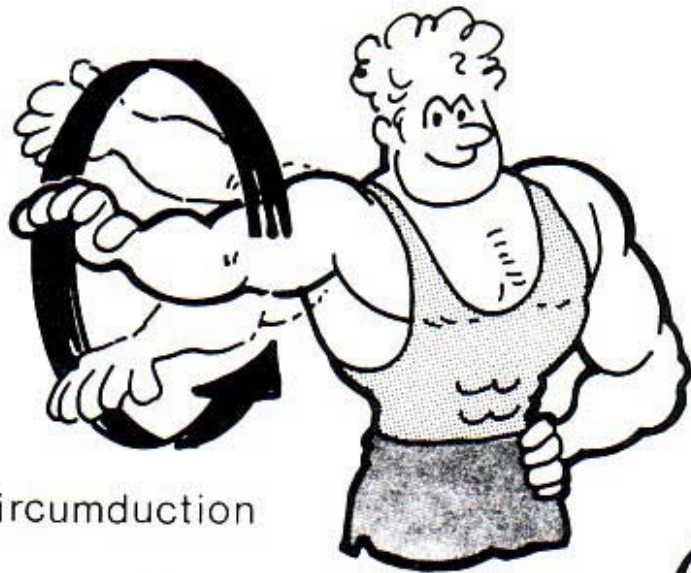


Posterior View

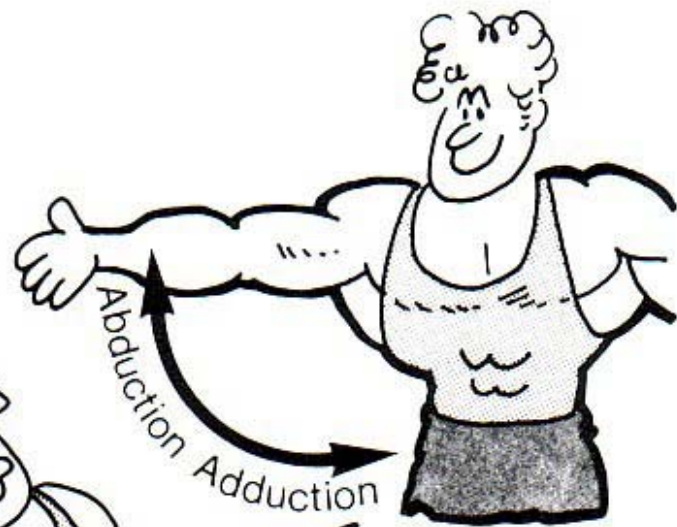








Circumduction



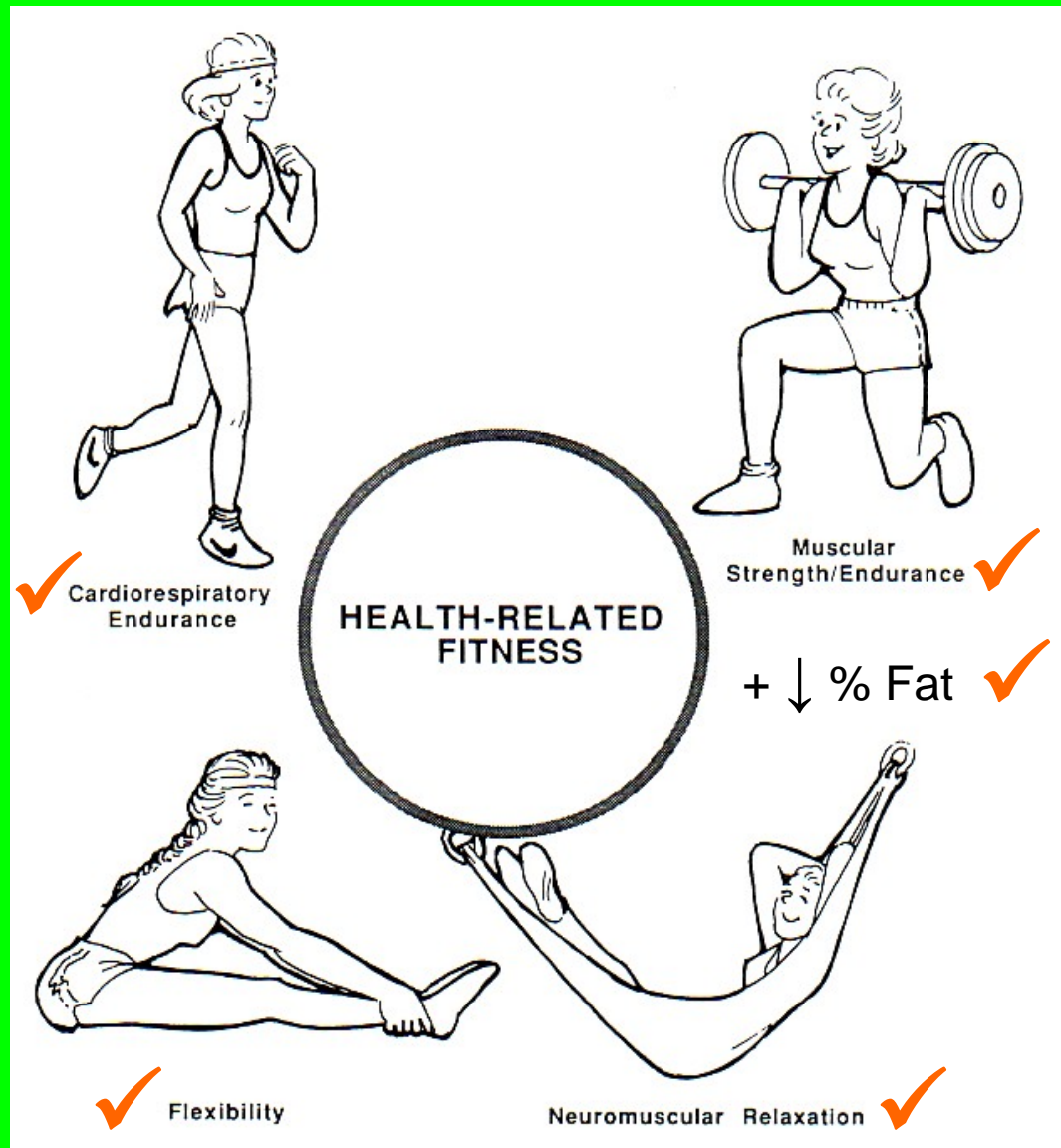
Rotation  
(about long axis)



Supination

Pronation

# Weight Training is Non-competitive Goal: Improve Life Time Fitness!



**Weight Lifting is Competitive**  
**Goal: Improve Strength for 1-RM!**

**Olympic Lifting**



**Power Lifting**





**Body Building is Competitive**  
***Bridges Gap? Wt Lifting vs Wt Training***  
***Goal: M. Hypertrophy, Balance, Delineation!***

