

Chapter 11: Basics of Flexibility

Lesson 1: Influences on Flexibility

Flexibility- the joints ability to move through its full range of motion

ROM- degree of motion allowed around a joint

Factors affecting flexibility- heredity, gender, age, body temp., injuries, body fat %, activity level

-80% of adult Americans suffer at some point from lower back pain

Rules for biomechanically correct lifting

-plan ahead, get a partner, keep body close to the object, feet shoulder width apart, bend knees, point toes, avoid side bending, lift slowly

Posture / lower back pain (fig 11.4 p. 330)

-good posture helps distribute the force of gravity throughout your body evenly

-30% to 50% of teens suffer from back pain

WHY? Inactivity, poor posture, backpacks worn incorrectly & weigh 15% more than their body weight

Lesson 2: Evaluating your flexibility

Benefits of flexibility conditioning (fig 11.5 p333)

-healthy joints, healthy muscles, reduces the risk of injuries, reduces soreness/stiffness, healthy emotions

Hyper flexibility - excessive amount of flexibility

-occurs when the joint has been overstretched

- heredity can cause loose joints

-**muscle imbalances**- one group of muscles becomes too strong in relation to a complementary group

3 tests:

Trunk lift- back extension flexibility

Arm lift- shoulder flexibility

Sit & reach- back & hamstring flexibility

Flexibility training for core stability

-**core stability**- stretching & strengthening of muscles around the spine and pelvic muscles

-**exercises**: incline press, row, squats, ab/lower back exercises

-helps prevent injuries & low back pain

-develops balance, power, coordination

Lesson 3: Developing your flexibility

F- at least 3 days per week

I- slight discomfort, but no real pain

T- 20-30s. for 3 sets / as ROM increases go to 30-60s.

T- specific stretches

Types of stretching & your flexibility

1. Static stretching- holding a stretch slowly and gradually
2. Ballistic stretching- stretch held briefly, can increase chance of injury due to short quick movements
3. Reflex-assisted stretching- stretching movements that challenge reflexes to adapt. (plyometrics)
4. Passive stretching-stretching against a counterforce & in which there is little or no movement. Force provided by partner, chair, towel etc.

Lesson 4: Flexibility exercises & activities (p. 346-348)

Exercises for prevention of lower-back pain- wall slides, rear leg raises, front leg raises, lower back hypertension stretch, crunches

Hazardous stretches & their modification (fig 11.4 p.350-353)

-hamstring bar stretch = use a chair

-deep knee bend= forward lunge

-hurdler stretch= reverse hurdler stretch

-stretch neck roll= bent-knee neck stretch

-prone arch= modified back hyperextension

-toe touch= sit & reach

-yoga plow= single-leg sit & reach

-quadriceps stretch= modified quadriceps stretch