

Improving Flexibility



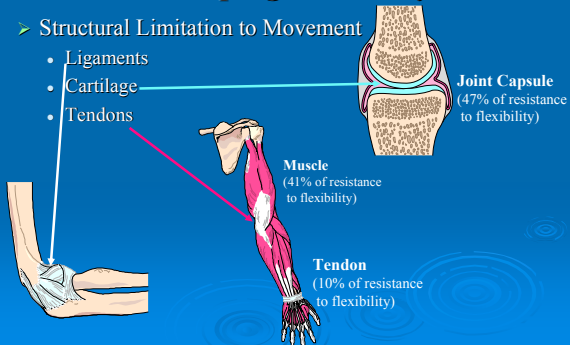
EXS 150
Chap 6



Physiological Basis for Developing Flexibility

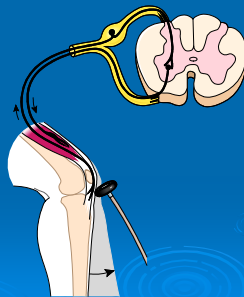
➤ Structural Limitation to Movement

- Ligaments
- Cartilage
- Tendons



Physiological Basis for Developing Flexibility

Stretch reflex –
involuntary contraction
of muscle that occurs
due to rapid stretching
of a muscle



Training to Improve Flexibility

- Static stretching – stretching that slowly lengthens a muscle to a point where further movement is limited



See Chap 6 for more pictures

Training to Improve Flexibility

- Proprioceptive neuromuscular facilitation (PNF) – combines contraction and relaxation of the muscle to improve flexibility
 - Contract relax stretching- demo
 - Contract relax/antagonist contract stretching (CRAC)- demo

↓
the muscle on the opposite side of the joint

Table 6.2 Sample Flexibility Program

TABLE 6.2
Sample Flexibility Program with Considerations for Duration of Stretch Hold, Number of Repetitions, and Frequency of Training

Week No.	Phase	Duration of Stretch Hold	Repetitions	Frequency (times/wk)
1	Starter	15 sec	1	1
2	Slow progression	20 sec	2	2
3	Slow progression	25 sec	3	3
4	Slow progression	30 sec	4	3
5	Slow progression	30 sec	4	3-4
6	Slow progression	30 sec	4	4-5
7+	Maintenance	30 sec	4	4-5

Flexibility: The exercise prescription

- Use of PNF or static stretching
- **Frequency:** 2 to 5 days per week
- **Duration:** 10 to 30 minutes each session
 - Starter phase – week one
 - Progression phase – add one session per week for the first 4 weeks
 - Start at 5 minutes and add up to 20 to 30 minutes during weeks 6 through 12
- **Intensity:** – don't over stretch or bounce
 - Hold each exercise approximately 8 to 10 seconds
 - Can hold stretch up to 20 seconds

Safety!!!

- See page 141 – 144 for contraindicated exercises
- Avoid breath holding
- Do not stretch any joint to the point that ligaments and capsules are stressed
- Use caution during passive stretching
- Avoid forceful extension and flexion of the spine
- Avoid ballistic movements, especially when muscles are cold



How to stay motivated

- Set aside time and stick to the schedule
- Make it FUN!!
- Get goals – short term and long term

