Chapter 10: Flexibility

Lesson 10.1: Flexibility Facts

Self-Assessment 10: Arm, Leg, and Trunk Flexibility
Lesson 10.1: Flexibility Facts

Lesson Objectives:
• Describe the characteristics of flexibility.
• Explain how you benefit from good flexibility.
• Explain why it is important to balance strength and flexibility exercises.
• Explain how the fitness principles of overload, progression, and specificity apply to flexibility.
Lesson 10.1: Flexibility Facts

Question

What is meant by the term *flexibility*?
Lesson 10.1: Flexibility Facts

Answer

Flexibility is

• the elasticity or compliance of muscles when stretching.
• the ability to move joints through a full range of motion.
• A joint is a place in the body where bones come together
• Examples of joints:
  – the ankles, knees, hips, wrist, elbows, shoulders
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Question

What is meant by the term *range of motion (ROM)*?
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Answer

- ROM means the degree of movement you have.
- Gymnasts have a large range of motion around the shoulder joint.
- Hurdlers have a large range of motion around the hip joint.
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Question

What primary joints in the body benefit from a greater range of motion, particularly when it comes to sports participation?
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Answer

Joints that benefit from a good range of motion:

• The ankle, hip, and shoulder joints
• Note that these are known as ball-and-socket joints
• They permit movement in many directions (rotation, flexion, extension)
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Question

How do the knee joints and elbow joints move?
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Answer

• The knee and elbow are known as hinge joints.
• They allow only an opening and closing of a joint.
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Question

Which muscle groups require good flexibility? What are the reasons for this?
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Answer

• For sports performance, it is important for major muscle groups to be flexible:
  – The hamstrings
  – The calf muscles
  – The muscles of the lower back
  – The hip flexors
  – The muscles of the shoulder

• Flexibility in these areas enhances performance and reduces risk of injury.
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Question

What specific health and wellness benefits do stretching exercises provide?
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Answer

Health benefits of stretching:
• Stretching short muscles helps improve posture.
• Good posture helps prevent or relieve back pain and reduces fatigue.
• Flexibility helps reduce risk of injury.
• For elderly people, flexibility helps prevent joint aches and pains.
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Question

What groups of people tend to be more flexible than others?
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Answer

The following people are more flexible:

• Athletes: because they practice stretching often.
• Young people tend to be more flexible than older people.
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Question

What does the term *hypermobility* mean?
Lesson 10.1: Flexibility Facts

Answer

Hypermobility:
• When a person is unusually flexible in certain joints
• Examples:
  – When a person can extend the knee, elbow, thumb, or wrist joint past a straight line, as if the joint could bend backwards.
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Question

Is hypermobility a problem?
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Answer

Hypermobility can be a problem:
• People with hypermobile joints are prone to joint injuries.
• Arthritis may develop (a disease in which the joints become inflamed).
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Question

What is the problem with doing little or no flexibility exercises but lots of muscle strengthening exercises?
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Answer

If you do not do flexibility exercises and do only strength exercises
• this will lead to decreased range of motion.
• this condition is sometimes called being muscle-bound.
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Question

Why is it important to strengthen the muscles of the back (posterior) of the body?
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Answer

The back muscles are important to strengthen because
• the back is very important for posture.
• sports performance is improved (strengthening the abdominal area is also important).
Lesson 10.1: Flexibility Facts

Question

How does the principle of overload relate to flexibility?
Lesson 10.1: Flexibility Facts

Answer

You need to stretch your muscles longer than normal to increase your flexibility.
Lesson 10.1: Flexibility Facts

Question

How does the principle of progression relate to flexibility?
Lesson 10.1: Flexibility Facts

Answer

You need to gradually increase the intensity of exercise. Intensity can be increased by stretching farther as you gain flexibility.
Lesson 10.1: Flexibility Facts

Question

How does the principle of specificity relate to flexibility?
Lesson 10.1: Flexibility Facts

Answer

Flexibility exercises improve only the specific muscles at the specific joints that you stretch.
Self-Assessment 10: Arm, Leg, and Trunk Flexibility

Question

How do you perform the arm lift assessment of flexibility?
Self-Assessment 10: Arm, Leg, and Trunk Flexibility

Answer

Arm Lift:
• Lie facedown. Hold a ruler or stick in both hands. Keep fists tight, palms facing down.
Self-Assessment 10: Arm, Leg, and Trunk Flexibility

Answer (continued)

• Raise your arms and the stick as high as possible. Keep your forehead on the floor and your arms and wrists straight.

• Hold this position while your partner checks the height of the stick with a ruler.
Self-Assessment 10: Arm, Leg, and Trunk Flexibility

Question

How should you perform the assessment of arm and shoulder flexibility (the zipper test)?
Self-Assessment 10: Arm, Leg, and Trunk Flexibility

Answer

Zipper:
- Reach your right arm and hand over your right shoulder and down your spine, as if you were pulling up a zipper.
Self-Assessment 10: Arm, Leg, and Trunk Flexibility

Answer (continued)

• Hold this position while you reach your left arm and hand behind your back and up the spine to try to touch or overlap the fingers of your right hand.
• Hold while your partner checks.
• Repeat, reaching your left arm over your shoulder.
Self-Assessment 10: Arm, Leg, and Trunk Flexibility

Question

How should you perform the trunk rotation and wrap around assessments of trunk flexibility?
Self-Assessment 10: Arm, Leg, and Trunk Flexibility

Answer

Trunk Rotation:
• Stand with your toes on the designated line. Your right shoulder should be an arm’s length (fist closed) from the wall, and directly on a line with the target spot.
Self-Assessment 10: Arm, Leg, and Trunk Flexibility

Answer (continued)

• Drop your right arm and extend your left arm to your side at shoulder height. Make a fist, palm down.

• Without moving your feet, rotate your trunk to the left as far as possible. Your knees may bend slightly to permit more turn, but don’t move your feet. Try to touch the target spot or beyond with a palm-down fist.
Self-Assessment 10: Arm, Leg, and Trunk Flexibility

Answer (continued)

Wrap Around:

• Raise your right arm and reach behind your head. Try to touch the left corner of your mouth. You may turn your head and neck to the left.
• Hold while your partner checks.
• Repeat with your left arm.
Self-Assessment 10: Arm, Leg, and Trunk Flexibility

Question

How should you perform the knee to chest assessment of leg flexibility?
Self-Assessment 10: Arm, Leg, and Trunk Flexibility

Answer

Knee to Chest:
• Lie on back. Extend left leg. Bring right knee to chest. Place hands on back of right thigh. Pull knee down tight to your chest.
Self-Assessment 10: Arm, Leg, and Trunk Flexibility

Answer (continued)

- Keep your left leg straight and both the leg and lower back flat on the floor.
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Answer (continued)

• Hold. Your partner checks that your knee is on your chest and uses a ruler to measure the distance that your left calf is from the floor.

• Record score. Repeat with your left knee. Record 1 checkmark for each side.
Self-Assessment 10: Arm, Leg, and Trunk Flexibility

Question

How should you perform the ankle flex assessment of ankle flexibility?
Self-Assessment 10: Arm, Leg, and Trunk Flexibility

Answer

Ankle Flex:

- Sit erect on the floor with your legs straight and together. You may lean backward slightly on your hands if necessary.

- Flex your ankles by pulling your toes toward your shins as far as possible.
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Answer (continued)

• Hold this position while your partner checks the angle that the soles of your feet make with the floor. The partner will align a T-square or a book with the floor and see whether the soles are at least perpendicular to the floor.
• Record 1 checkmark in the correct column.
• Pass = soles angled 70° or more