Neutral Position

The neutral position of your spine is a position in which your back is most comfortable, yet is neither fully rounded forward nor arched backward. To find your neutral position, do the following:

1. Stand with your knees slightly bent.
2. Tighten your buttocks and move your pelvis so your lower back fully rounds out.
3. Tighten your lower back muscles and move your pelvis so your lower back fully arches.
4. Slowly wiggle your pelvis back and forth between these 2 extremes to find a position somewhere in the middle which is most comfortable.

Once you have found your neutral position, try to keep it by contracting your abdominal muscles. You can also find your neutral position when you are in other positions, such as sitting or lying. Keep your neutral position during exercise and throughout your daily activities.

1          2          3            4
- **Abdominal Bracing**
  - Find your neutral position while you are lying in this position.
  - Gently pull in your abdominal muscles to keep this position.
  - **Do not** bear down or forcefully suck in your abdomen.

- **Abdominal Bracing with Arms**
  Abdominal bracing with arms helps you hold the neutral position against resistance from the weight of your arms.
  - Contract your abdominal muscles and find your neutral position.
  - Keep contracting your abdomen as you begin to raise one arm over your head.
  - As you lower the first arm; raise your other arm overhead.
  - Remember to keep breathing and keep your movements even and steady.
  - Keep your trunk from moving by contracting your abdominal muscles.
Abdominal Bracing with Legs
Abdominal bracing with your legs increases the strength of your lower abdominal muscles, which are used to hold a neutral position against an increased force.

- Find your neutral position and contract your lower abdominal muscles.
- Raise your leg without lifting or rotating your hips. You will need to contract your abdominal muscles more tightly as you move your knee toward your chest.
- Do not let your hips rise up or rotate as you exercise.
- Remember to keep breathing, and keep the motion as smooth as possible.

Abdominal Bracing with Arms and Legs
This exercise tests the strength of your abdominal muscles to hold your spine in a stable position while both arms and legs move independently.

- Get into the neutral position and firmly contract your abdominal muscles.
- Raise one arm and the opposite leg at the same time.
- Lower this arm and leg to the floor and repeat the exercise with the other arm and leg.
- Use your abdominal muscles to hold you firmly in a neutral position while you breathe freely.
- Move your arms and legs in a smooth, controlled motion.
Partial Sit-Ups
Partial sit-ups are done to strengthen your abdominal muscles.

- Start from a neutral position.
- Use your abdominal muscles to raise your upper back off the mat, while exhaling.
- Rise up only enough to get your shoulder blades off the mat.
- Hold the lift for a count of 5 seconds.
- **Do not** thrust yourself off the floor or lift your head with your arms.
- Keep your knees bent and your feet flat on the mat. You should feel the contraction only in your abdominal muscles.
- Make the motions smooth and relaxed.

Partial Diagonal Sit-Ups
This type of sit-up strengthens the abdominal and lateral oblique muscles.

- Start from your neutral position.
- Raise your upper body off the mat with one shoulder slightly higher and not touching the mat. The shoulder not touching the mat will be used for the first set of sit ups. Contract abdomen muscles to raise upper back off the mat while exhaling.
- Make the move smooth and relaxed.
- Hold the lift for a count of 5 seconds.
- Gently lower your upper body down.
- Repeat the exercise raising the other shoulder higher.
- Keep a steady pace and relax as you breathe.
Bridging

Bridging helps strengthen your abdominal and lower back muscles and buttocks. It also improves your ability to hold a neutral position.

- Tighten your abdominal muscles to keep your back in a neutral position.
- Use your buttock muscles to slowly rise off the surface without bending your lower back. Your abdominal and buttock muscles are used to keep your pelvis up.
- Relax your shoulders and neck as you hold the lift for a count of 5 seconds.
- Make sure to keep your breathing even.

Talk to your doctor or others on your health care team if you have questions. You may request more written information from the Library for Health Information at (614) 293-3707 or email: health-info@osu.edu.