

**In-Depth Mapping:** The number one *neuromuscular* priority of the brain is not to fall over! The neuromuscular system is the interaction of the nervous system and the muscular system. It works by receiving and sending information through *receptors* and nerves that control muscles and various types of *connective tissues* located throughout the body. Many receptors are concentrated around joints, and we perceive their input through kinesthetic feedback. Without nervous system messages, muscles would be useless.

The neuromuscular system develops remarkable compensations for illness and injury in order to support and move our bodies in space. Unfortunately, some of us are creating compensations that we don't need or holding on to patterns that were once useful. The result of these unnecessary compensations is excessive tension or bracing. While we are very glad to brace in order to prevent a fall, we are not as comfortable if the bracing interferes with free movement for other tasks like playing the piano.

### **Balancing on the bench**

One of the first things we teach our students is how to sit on the bench. A very good word for this quality is *balance*. Balance is the whole body co-ordination that allows us to move freely in all directions. Balance is a better word than posture for most students because posture often promotes a rigidity that makes playing difficult. Balance is a word that encourages liveliness because it is always adapting to current conditions. Balance is the opposite of bracing. Very young children tend to have exquisite balance and are good models for their teachers.

When children are asked to show balance, they often stand on one leg. They have probably been taught that good balance is demonstrated in this rather exceptional way. Help them learn that balance is ongoing, no matter how many legs are on the ground.

Depending on your approach and the student's needs, you may use supports for the student's feet at the piano. Again, young children may balance beautifully without them. If they are trying to reach the floor rather than balancing with freely swinging legs, they will probably pull themselves out of balance. Older children and adults may benefit from reminders to let their feet find the floor. See Basic Tools for Body Mapping for more discussion of this point. More information on feet will be presented in the section on Mapping Movements of the Foot.

**Fundamentals:** A student who sits in balance will be comfortable and able to move easily. Most young children sit in balance without being taught a method for sitting. Students who need to learn how to balance will improve quickly by finding their *sitting bones*. The sitting bones are part of the larger structure known as the *pelvis*. See Image #1.