

## **Ligaments and Joint Mobility**

By Ben Benjamin, PhD

**Question 1:** True or False: Tendons should be tight, and ligaments should be relaxed and loose.

**Answer:** False. Muscles, not tendons, should be relaxed and loose.

Ligaments should be tight to support and stabilize the joints.

**Question 2:** The real meaning of being double-jointed is that the person has:

- a. deformed joints
- b. unusually long ligaments (from birth)
- c. two joints where there should be one
- d. very flexible joints

**Answer:** b and d. A so-called "double-jointed" person is born with ligaments that are longer than needed for his or her body. As a result, this person has very flexible joints. In addition, people who are born with normal ligaments may, over time, develop loose ligaments as a result of repeated injuries and stretching of the scar tissue that forms.

The above two questions relate to a basic principle in understanding the injury process: the more movement or flexibility there is at a particular joint, the more prone to injury the area is. The greater the range of motion, the more possibilities there are for injuries to occur. The greater-than-normal flexibility of loose ligaments permits excessive movement at the joints, sometimes providing amazing athletic prowess as well as increased vulnerability.

The principle, "the more flexibility the more prone to injury" can easily be seen in areas of injury frequency. For example, more low backs and necks are injured than thoracic spines. There is much more mobility in the neck and low back joints of the spine than in the thoracic region. This is because the ribs of the thorax are

held tightly in place at the spine by numerous ligaments, reinforcing the thoracic cavity that protects our internal organs. Along with the spinal ligaments, the ligaments that hold the ribs in place prevent free movement of the thoracic vertebrae and help to stabilize the thoracic spine. By contrast, in the neck and low back, where only the spinal ligaments support the vertebrae, there is greater flexibility and injuries are more frequent.

In summary, ligaments maintain the structural integrity of joints. When there is a great deal of mobility at a joint, as in people who are "double-jointed" or who have been subjected to multiple injuries, the ligaments and joint capsules stretch and loosen over time and are therefore more likely to become injured.

---

Click [here](#) for more information about Ben Benjamin, PhD.



Page printed from:

[http://www.massagetoday.com/archives/2001/04/09.html?no\\_b=true](http://www.massagetoday.com/archives/2001/04/09.html?no_b=true)