

## ***Fourteen things you should know about back pain***

1. Back pain is as mystifying today as it was decades ago. Despite excellent tests and procedures, modern back specialists admit that up to eighty percent of all cases have no clear physiological cause. In fact, many pain-free people show bulging or herniated discs in x-rays.
2. Also, despite everything we know about back pain, ninety percent of us are going to have a disabling episode at some point in our lives.
3. It is difficult to predict which individual person will develop back pain. Strength, fitness, and back x-rays are not good predictors. One major study concluded that the only predictors were 1) whether the person has had back pain before, and 2) whether the person smokes cigarettes.
4. On the other hand, job characteristics are predictors of back pain. Jobs with heavy or frequent lifting are high risk, as are jobs involving prolonged standing or sitting.
5. There is little agreement on how to do lifting with little risk. Lifting with the legs is easy on the back, but hard on the legs and muscles. Lifting with the back puts strain on the disks but is less fatiguing.
6. So-called 'back belts' have not been proven to strengthen backs or prevent back problems. On one hand, they may help remind wearers to lift carefully. On the other hand, they may give wearers a false sense of greater strength, encouraging them to lift more than they should.
7. People who sit for long periods are at risk for back disorders. The two greatest problems seem to be 1) sitting upright or forward, and 2) not changing position.
8. An upright posture with a ninety-degree hip position is actually unhealthy, from the perspective of the intervertebral discs. For a number of reasons, the discs experience more pressure --- and the pressure is more lopsided --- than while standing.  
So it's a good idea to sit with the hip joints somewhat straightened. Yes, this resembles a slouch, with your rear end scootched (a technical term!) forward in the seat. A supported slouch may be healthy in the long run.  
Forward-tilt chairs support this posture, but so do chairs with level seats and reclined backrests.
9. Even if the hip joints aren't somewhat straightened, sitting in a reclined posture is more healthy than sitting upright.  
This is because reclined sitting puts more of your weight onto the chair's backrest. If the chair backrest holds up more weight, the discs in the lower back hold up *less* weight. (Well-designed armrests also take some of the upper body weight from the discs.)  
And reclined sitting lets the back muscles relax.
10. All sitters should move around. In addition to helping the muscles relax and recover, this alternately squeezes and unsqueezes the intervertebral discs, which results in better filtration of fluids into and out of the cores of the discs. Discs stay plumper and, in the long run, healthier.
  - a. One implication: chairs should follow the sitter as he/she changes posture.
11. The most important chair adjustments are:

- ❖ seat height from the floor --- the feet should be able to rest flat on the floor. (However, this doesn't mean the feet should always be flat on the floor. Legs should be free to stay in different positions).
  - ❖ depth from the front of the seat to the backrest --- sitters should be able to use the backrest without any pressure behind the knees.
  - ❖ lumbar support height --- every person is shaped differently.
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12. The 'proper' chair adjustments and chair posture are greatly influenced by the rest of the work area. In particular, the eyes can affect posture, especially if the work material is too far, low, or high. Hand positions (especially working far from the body) can also affect body position, particularly the posture of the upper back and neck.
  13. Upper back and neck discomfort is often related to upward viewing angles (for example, monitors above eye height) or leaning, twisting, or reaching (for example, looking down and sideways at a document on the desk, or reaching for a mouse).
  14. For people with existing, chronic, difficult back pain: all the above rules are optional, because each back pain case is different. Rules for prevention of back pain or treatment of medium- level cases may be completely inappropriate for individual cases of severe back pain. Before accepting any advice, trust the "advice" of your own body's discomfort reactions.