

A BETTER BACK THROUGH BACK INJURY PREVENTION

ALLIANZ RISK CONSULTING



Image: Shutterstock

One of the most common and most costly injuries sustained by workers involves the spinal column, or strain and sprain of the muscles, tendons, and ligaments of the back. A better back begins with recognizing where bad habits or faults lie. There are basically two types of back injuries: those that occur to the spinal vertebrae, and those that occur to the back muscles and tendons.

PHYSICAL CHARACTERISTICS

The spinal column consists of a series of 26 moveable bones called vertebrae. These are kept in line by ligaments and muscles. If muscles strain to provide support, backache and even pinched nerves may result.

Located between each pair of vertebrae are the spinal disks. These disks contain a viscous fluid which acts as a shock absorber to the vertebrae, when the vertebrae are flexed as the result of normal activity.

The spinal column is designed to support a total of approximately five hundred pounds. The law of physics involving levers and fulcrums applies to calculating the weight placed on the spinal column. It is approximately a 10:1 ratio between the weight of what is lifted, to the weight that is placed on the spinal column. Exceeding this weight limitation places severe stress on the disks. Aging causes these disks to degenerate over time, thus reducing their shock absorber ability. Improper lifting technique can accelerate the process. Obviously the best way to avoid back injury is through appropriate back care.

PROPER LIFTING

When lifting ANY weight at all, apply the four principles for safe lifting.

- Build a bridge
- Hold close
- Protect the curves, and
- Tuck and lift.

WARM-UP

It is always important to warm up before performing any task which requires muscular flexibility. This can avoid the strain injuries that can occur when muscles are not warmed up before attempting to lift. Muscle fibers are very similar to plastic material. When it's cold, the fibers are very brittle and can tear or break easily. When it's warm, these fibers can be very stretchable and flexible.

CLOTHING

Wearing the appropriate clothing is also important to ensure that the muscles and tendons are kept warm. Layers of light clothing are preferable to one heavy article of clothing, since one heavy article will lead to rapid warming. When this is removed, the body cools down rapidly and increases the likelihood of a strain injury.

POSTURE

Good posture is also an element toward creating a better back. With good posture, the backs of your head, heels and sacrum (base of spine) should all be in line. Backache and spinal problems stem from poor posture. Round shoulders weaken back and loosen arms. The neck bent forward caves in the chest and curves the spine. Slack abdominals allow stomach to hang causing the trunk to curve forward to compensate for imbalance. When the pelvis is tilted, it causes excess curvature of the spine, and a chain reaction of misalignment occurs.

CORRECTIVE ACTIONS

Some everyday improvements include standing instead of sitting. With each degree of inclination, spinal pressure increases dramatically.

Swimming is an excellent exercise to take pressure off the spine and strengthen the abdominal muscles that support it.

Dividing a heavy load into two loads when carrying will help maintain balance. If not possible, keeping the load close to you when lifting and carrying will help reduce pressure on the spine.

Flexibility exercises can be done at home as well as at the workplace. These include simple stretches and exercises that strengthen the muscles that surround the spine, as well as the abdominal muscles.

Design: [Graphic Design Centre](#)

Copyright © April 2020 Allianz Global Corporate & Specialty SE. All rights reserved.

The material contained in this publication is designed to provide general information only. While every effort has been made to ensure that the information provided is accurate, this information is provided without any representation or guarantee or warranty of any kind about its accuracy and completeness and neither Allianz Global Corporate & Specialty SE, Allianz Risk Consulting GmbH, Allianz Risk Consulting LLC, nor any other company of Allianz Group can be held responsible for any errors or omissions. This publication has been made on the sole initiative of Allianz Global Corporate & Specialty SE.

All descriptions of services remain subject to the terms and conditions of the service contract, if any. Any risk management duties as laid down in the risk service and/or consulting contracts and/or insurance contracts, if any, cannot be delegated neither by this document, no in any other type or form.

Some of the information contained herein may be time sensitive. Thus, you should consult the most recent referenced material. Some of the information given in this publication may not apply to your individual circumstances. Information relating to risk services is intended as a general description of certain types of risk and services to qualified customers. Allianz Global Corporate & Specialty SE do not assume any liability of any kind whatsoever, resulting from the use, or reliance upon any information, material or procedure contained in this publication.

Allianz Global Corporate & Specialty SE, Fritz-Schäffer-Strasse 9, 81737 Munich, Germany

Commercial Register: Munich, HRB 208312