Back Pain and Lifting— Some Fresh Ideas

Are you still being told that the only way to lift an object is to place it between your legs and then lift with your legs, not your back? The person who gave that advice never had to lift a bundle of 7 foot-long pipes. Or a washer and dryer. This advice doesn't reflect the real world of over-sized pipes, appliances and boxes. And it assumes that many people have sufficient leg strength to perform the lift — many simply do not. With up to 80 percent of all adults expected to experience back pain during their lifetime, learning to lift, lower and move objects safely is very important.

Revisiting the causes of back injury

Overexertion injuries result from overloading or over-stretching muscles, tendons and ligaments. Overloading exceeds their strength and overstretching exceeds their range of motion. Overuse injuries result from using muscles, tendons or ligaments so much that they become damaged. In moderation, for example, the task of manually loading pallets may not be particularly hazardous. But if you repeat the task endlessly for eight hours each day, in an awkward body position and without allowing the body enough time to recover, you may end up with a back injury.
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Activity is your best friend

Some people still believe that to reduce the risk of low-back injury, all activities involving lifting, lowering and moving objects should be eliminated. This isn't quite correct. To remain healthy, muscles and other tissues must be challenged. The key is making sure that the challenge is sufficient — not too little, not too much. The worker slinging 40-kilogram bags of cement may need to reduce how much she works with her back. The process-control operator who sits at a console all day without moving much might be better off with a mix of work activities that includes using his back.

Work up your strength

To avoid injuring the muscles, tendons and ligaments in your back, you must give them a chance to adapt to loads of increasing weight. You want to expose them to loads that challenge but don't damage them. Equally important, you want to allow them time to recover between periods of activity. Gradually increasing the weight they must carry and the length of time they are used improves these body tissues' tolerance to injury.

Work up your endurance

Muscle endurance, which helps tissues work longer without tiring and losing their ability to work effectively, has more protective value than muscular strength. Research shows that exercise programs combining cardiovascular exercise with low-back exercise are more effective than programs emphasizing low-back exercise alone. Cardiovascular exercise such as walking briskly, skating or cross-country skiing helps build

muscle endurance.

Lifting principles

While employers should eliminate as much manual lifting and lowering as practical, there will still be times when objects must be handled manually. The sedentary worker may actually be at greater risk of injury than the laborer. Muscle endurance has more protective value than muscular strength. Is there one perfect technique for lifting? Unfortunately not. But do follow the four principles below as much as possible when lifting. Make sure your co-workers or employees follow these principles.

(1) Keep the natural curve in your lower back

When standing straight, the lower back naturally curves to create a slight hollow. Always try to maintain this curve when lifting, lowering or moving objects. The spine and back are their most stable in this position.

(2) Contract your abdominal muscles

Contract the abdominal muscles during lifting, lowering and moving activities. This improves spine stability. Sometimes describes as “bracing”, contracting the abdominal muscles even slightly (as little as four to five percent) improves spine stability and reduces the likelihood of injury.

(3) Avoid twisting

Twisting the back can make it less stable, increasing the likelihood of injury. Bracing helps reduce any tendency to twist.

(4) Hold it close

Keep the load as close to the belly button and body as possible. Doing so reduces the strain on muscles of the back and trunk. If necessary, use protective clothing such as leather aprons so that sharp, dirty, hot or cold objects can be held as close to the body as possible.

Seven myths about back pain

And speaking of fresh ideas, here are seven myths about back pain and some of today’s thinking about them:

(1) ***If you’ve a slipped disk (also known as a herniated or ruptured disk), you must have surgery. Surgeons agree about exactly who should have surgery***.

Causes of back pain can be complex and difficult to diagnose. Opinions and treatment approaches vary among surgeons and health professionals. **Only about two percent of all persons with back pain actually need surgery**. Who you see is what you get. Consider non-drug, non-surgical therapies first. Such as Acupuncture, Chiropractic and Physical Therapy. Consider anti-inflammatory herbal of dietary supplements. Rub liniments into the back such as Bio-Freeze or Tiger Balm.

(2) X-ray images, CT and MRI scans can always identify the cause of pain.

In research studies, abnormalities of the spine were as common in people without back pain as those

suffering with back pain. Seeing abnormalities with these imaging methods is no guarantee that the cause of pain has been found.

(3) If your back hurts, you should take it easy until the pain goes away.

Persons with back pain who continue routine activities as normally as possible do better than those who try either bed rest or immediate exercise. It is often helpful to have persons with back pain return to some form of light work until they have recovered more fully.

(4) Most back pain is caused by injuries or heavy lifting.

Some back pain is related to serious disease or physical problems of the spine. Up to 85 per cent of persons with back pain, however, can't recall a specific incident that brought on their pain. Heavy lifting or injuries, though risk factors, do not account for most episodes.

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(5) Back pain is usually disabling.

Most people with back pain simply get better, regardless of whether they receive treatment or the treatment methods used. Only a small percentage of workers with back pain miss work because of it. Most people who leave work return within six weeks, and only a small percentage never return to their jobs.

(6) ***Everyone with back pain should have a spine x-ray.***

X-rays often provide little more useful information than the physical assessment performed by a health professional. Low-back x-rays may also involve unnecessary exposure of the reproductive organs to radiation.

(7) ***Bed rest is the mainstay of therapy.***

This is old thinking. Studies have shown that four days of bed rest turns out to be no more effective than two days, or even no bed rest at all. These same studies have shown that people who remain active despite pain, experience less ongoing pain in the future. And they make less use of health care services. (Source: Deyo, RA. Low-Back Pain. Scientific American, August 1998.)

Back Pain & Inflammation Herbal Program

By Geoff D'Arcy, Lic. Ac., D.O.M.

Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) are a class of drugs that include Motrin, Advil, Aleve and Nuprin. NSAIDs, according to a 1999 study in the New England Journal of Medicine, are responsible for 16,500 deaths each year in the U.S. There are much gentler, herbal alternatives that can reduce inflammation. The normal effects of aging that result in decreased bone mass, and decreased strength and elasticity of muscles and ligaments, can't be avoided, however, the effects of aging can be slowed by:

- exercising regularly to keep the muscles that support your back strong and flexible
- using the correct lifting and moving techniques; getting help if an object is too heavy or an awkward size
- maintaining your proper body weight; being overweight puts a strain on your back muscles
- avoiding smoking

- maintaining a proper posture when standing and sitting; don't slouch ·
- maintaining correct weight· exercising regularly 5 to 7 times a week; little and often
- 20 minutes of Stress Relief technique daily, to balance the Parasympathetic Nervous System and switch off the fight or flight response If you have injured any of these areas, you may feel the need to use pain killers. However, caution must be taken - with chronic use (longer than three days), typical over-the-counter (OTC) preparations almost always pose complications such as kidney and liver toxicity. Even the safest OTC pain killers such as aspirin or ibuprofen frequently cause gastrointestinal bleeding or ulcers when used longer than a few days and are a major cause of hospitalization in America today. These complications can be potentate if alcohol is consumed.

SUPPLEMENTATION PROGRAM

1. **INFLAM-EASE FORMULA:** 2 capsules, 3 times daily;
2. **OPTI-EPA: OMEGA 3 FISH OIL:** 1 or 2 capsules daily as directed.
3. **HYALURONIC ACID:** 1-2 capsules daily.
4. **QUERCITIN BROMELAIN COMPLEX:** 1-8 tablets daily as directed.
5. **CHELATED MAGNESIUM:** 1-2 capsules daily.

INFLAM-EASE FORMULA

Bromelain is a potent anti-inflammatory enzyme. Scientific evidence shows that bromelain (a proteolytic enzyme of pineapple) breaks down fibrin, a substance that builds up around inflamed areas, blocking blood supply. It has been shown to actually digest inflammatory compounds. Bromelain quenches inflammation at its source - the molecules that create it - and it is also effective in inhibiting prostaglandins. In an extensive five-year study of more than 200 people experiencing inflammation as a result of surgery, traumatic injuries and wounds, 75 percent of the study participants had good to excellent improvement with bromelain, a much higher rate than that afforded by drugs. Most of the people in this study were discharged from the hospital in only eight days - half the usual amount of time. They also experienced no side effects. The results of several other studies showed that this enzyme also reduces inflammation resulting from arthritis or sports injuries.

Turmeric has an active ingredient curcumin, which inhibits several inflammatory compounds including nitric oxide, interleukin -1, tumor necrosis factor, lipoxygenase and cyclooxygenase. Curcumin has antioxidant free radical quenching properties. These have unique anti-inflammatory properties with therapeutic action comparable to aspirin, but with important advantages in that curcuminoids prevent the synthesis of thromboxanes, causing redness, swelling and pain, and do not affect prostacyclins, important in the prevention of vascular thrombosis. The anti-inflammatory mechanisms of curcumin compare to those of the non-steroidal anti-inflammatory drug, phenylbutazone, but with no side effects. It has been proven to alleviate the symptoms of osteoarthritis, rheumatoid arthritis, stomach pains and intestinal spasm.

Myrrh is an unusual combination of chemical compounds. Technically it is an oleo-gum-resin whose constituents include volatile oils, terpenes, resin acids, mucilages, and tannins. The resin is thought to be the most effective component in killing various microbes, while the tannins may be the astringent agents. Terpene compounds found in myrrh species have been shown to relax smooth

muscles.

CHELATED MAGNESIUM. The Journal of Nutritional Medicine published a study showing malic acid and magnesium relieved pain in all patients within 48 hours! Another study at the Pain and Stress Center showed patients given 1200 mg of malic acid per day combined with magnesium, reported less stiffness and soreness and fewer trigger points. Studies show that malic acid is one of the most effective intracellular aluminum chelators for neuromuscular and brain tissue, consequently reducing pain and inflammation. Magnesium is a key mineral cofactor for many anaerobic as well as aerobic reactions that generate energy, and has an oxygen-sparing effect. It is essential for the cell's mitochondria "powerhouses" to function normally, being involved in both the production and utilization of ATP. Magnesium has been shown to help relax muscles from spasms that can accompany back pain and strain.

HYALURONIC ACID. Hyaluronic Acid is a compound present in every tissue of the body, with the highest concentrations occurring in connective tissues such as skin and cartilage. Hyaluronic Acid is an important constituent of joint fluid where it serves as a lubricant and plays a role in resisting compressive forces. It supports healing of joints and ligaments.

QUERCITIN AND BROMELAIN. Bromelain is an enzyme extracted from the stem of the pineapple. Quercetin is a plant pigment found in large amounts in foods such as onions and apples. Together, Bromelain and Quercetin work synergistically to reduce the bruising and swelling

OPTI-EPA OMEGA 3 FISH OIL. Opti-EPA 500 delivers high levels of EPA and DHA, and is lower in saturated fatty acids than regular marine fish oil. Opti-EPA 500 is strictly screened for the absence of any toxic metals and chemicals, and is completely free of cholesterol. A proper balance of fatty acids is as important as are vitamins and minerals. In their polyunsaturated forms, they are indispensable for many physiologic processes and are integral components of nerve cells, cell membranes, and vital hormone-like substances known as prostaglandins. Prostaglandins help regulate numerous body functions including normal immune response during inflammation.

ANTI-INFLAMMATORY DIETARY GUIDELINES

- Substitute red meats with fish and white meat; use soy based alternatives, decrease the number of eggs per week, use egg beaters or tofu, use low fat dairy products, substitute vegetable oils for butter, lard and other saturated fats, eat fruits and vegetables daily and cut down on all refined sugar and flour products, use no or low salt, and drink herbal teas, green tea, or vegetable juices instead of soft drinks and coffee.
- Eat more cold water fish and take 1 tablespoon of flaxseed oil daily. Salmon, mackerel, herring, halibut are good sources of omega-3 fatty acids. Flaxseed oil is a good source of alpha linolenic acid, an omega-3 oil that the body can convert to eicosapentaenoic acid (EPA).
- Eat 5 or more servings of a combination of vegetables and fruits. Numerous studies show that a diet high in carotene rich and flavonoid rich fruits and vegetables reduces the risk of heart disease and strokes. Green leafy vegetables, yellow-orange colored fruits and vegetables, such as carrots, apricots, mangoes, yams and squash. Red and purple vegetables and fruits such as tomatoes, red cabbage, berries, and plums. Legumes, grains and seeds are rich sources of carotenoids.
- Good sources of flavonoids include: citrus fruits, berries, onions, parsley, legumes, green tea

and red wine.
- Increase the intake of fiber and complex carbohydrates by eating 6 or more servings per day of whole grain breads, cereals, and legumes.

NON-DRUG NON-SURGICAL OPTIONS

ACUPUNCTURE, CHIROPRACTIC, PHYSICAL THERAPY

Acupuncture is a great option for back and neck pain and in my own practice Acupuncture has saved many patients from surgeries allowing their own body to heal itself

Chiropractic, also works with the alignment of the spine, to create healing.

Physical Therapy also has helped patients achieve better myofascia and improved muscular response to protect against back pain.

STRESS. Relaxation, yoga, breathing exercises, meditation, all can help and should be pursued. Utilizing a relaxation technique of 20 minutes a day progressively sweeping the mind through the body head to toe, can help relax the tone of the nervous system. This helps take the body out of "the fight or flight response". This allows for less chance of spasming that often contributes to inflammation of the myofascia. Check out the Natural Stress Relief Program.

EXERCISE. Should be of short duration and often, with gentle stretching beforehand.

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