

Roseville Fire Department

Health & Wellness

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SPECIAL POINTS OF INTEREST:

- In 2014, a total of 64 firefighters died while on duty.
- A significant decrease from 97 in 2013
- One incident claimed 32 lives
- Sudden cardiac death accounted for the largest share (36)

INSIDE THIS ISSUE:

- Knee Pain 2
- Back Pain 3
- Almonds for the heart 4
- Weight training & Belly Fat 4

15 things you didn't know about back pain

Back pain is so prevalent that it costs the country more than cancer and diabetes treatment combined, but there are many myths circulating about the condition. This is a topic that I speak on frequently and here are some interesting thoughts around back pain.

Scientific research in the area of back pain has progressed in recent times and it is challenging widespread beliefs held about the condition that seems to plague so many people.

1. Back Pain is common and normal

Eighty percent of people will experience an episode of back pain during their lifetime. Experiencing back pain is like getting tired or becoming sad; we don't necessarily like it, but it occurs to almost everybody at some point. What isn't common, however, is not recovering from back pain.

Most acute back pain is the result of simple strains or sprains and the prognosis is excellent. Within the first two weeks of an acute episode of pain, most people will report a significant improvement in their symptoms with almost 85pc of people fully recovered by three months. Only a very small number of people develop long-standing, disabling problems.

2. Scans are rarely needed

Both healthcare professionals and members of the public often consider getting a scan "just in case" there is something serious involved in their pain. However,



all the evidence suggests scans only show something truly important in a tiny minority (<5pc) of people with back pain.

A brief consultation with a healthcare professional (eg GP, chartered physiotherapist) would usually be able to identify if a scan was really needed based on a person's symptoms and medical history.

3 Interpreting scans should come with a health warning

We used to think that if we got a good enough picture of the spine with scans that it would be a big help in solving back pain. However, we now know that this is most often not the case.

When people have scans for back pain, the scans often show up things that are poorly linked with pain. In fact, studies have shown that even people who don't have back pain have things like bulging discs (52pc of people), degener-

ated or black discs (90pc), herniated discs (28pc) and 'arthritic' changes visible (38pc).

Remember, these people do NOT have pain! Unfortunately, people with back pain are often told that these things indicate their back is damaged, and this can lead to further fear, distress and avoidance of activity. The fact is that many of these things reported on scans are more like baldness - an indication of ageing and genetics that do not have to be painful.

4 Back pain is not caused by something being out of place

There is no evidence that back pain is caused by a bone or joint in the back being out of place, or your pelvis being out of alignment. For most people with back pain, scans do not show any evidence of discs, bones or joints being 'out of place'.

In the very small number of people with some change in their spinal alignment, this does not appear to be strongly related to back pain.

Of course, it is worth noting that many people feel better after undergoing treatments like manipulation.

However, this improvement is due to short-term reductions in pain, muscle tone/tension and fear, NOT due to realigning of body structures.

(continue on page 3)

Report suggests knee meniscus surgery may be needless



“Non-surgical treatments have potential to provide the same, if not better, outcomes for patients, with less risk, “and certainly with less cost,”

It starts with pain in the knee, followed by swelling so intense that a patient may have trouble bending or straightening the leg.

A torn meniscus – the cartilage that cushions the knee joint – is a common knee injury in Canadians aged 45 to 65. But patients may be better off without the most common treatment: surgery.

The benefits of knee meniscus surgery are meagre compared with the risks, according to an analysis published Tuesday in the medical journal BMJ. The review of 18 studies found that surgery-related complications, though rare, include deep vein thrombosis, infection or blockage of the main artery of the lung. Even in cases where surgery helps, the benefit is “markedly smaller than that seen from exercise therapy,” the authors wrote.

For middle-aged Canadians, this popular surgery has become a default solution to painful wear and tear on the meniscus. Over the past seven years, however, study after study has shown that arthroscopic surgery, which involves small incisions and a tiny camera that helps the surgeon trim any ragged cartilage, is no better than a placebo.

Physiotherapists note that surgery does not treat the underlying causes of a damaged meniscus, which may include excess body weight and weak musculature around the knee joint. Expanding medical coverage to include physiotherapy would be a more effective strategy to treat age-related knee pain, they argue.

Non-surgical treatments have potential to provide the same, if not better, outcomes for patients, with less risk, “and certainly with less cost,” said Dr. Michael Hunt,

an associate professor of physical therapy at the University of B.C.

Dr. Moin Khan, a research fellow in orthopedic surgery at McMaster University, agrees. He is the lead author of a 2014 study on arthroscopic surgery published in the Canadian Medical Association Journal. Khan and co-authors reviewed how a total of 805 participants in seven separate studies fared after receiving arthroscopic surgery, no surgery or a sham procedure, in which surgeons made an incision but did not trim any cartilage in the knee.

At the six-month and two-year mark the three patient groups showed no significant differences in their pain symptoms or ability to do everyday activities, such as walking or climbing stairs.

“Patients in non-operative groups did just as well, or better in some cases, as the operative group – and definitely at less risk,” Khan said.

Asked why specialists continue to recommend arthroscopic surgery, Khan explained that studies casting doubt on the standard knee scope are relatively recent. “There is often a lag between research findings and changing widespread clinical practice.”

Knee arthroscopy is day surgery that usually takes an hour or two. The surgery is normally performed with local anesthetic around the knee, or regional anesthetic, which numbs the patient from the waist down. The recovery period is about one to two weeks, followed by three to six weeks of physiotherapy to help restore the full range of motion and strengthen the muscles around the knee.

Physiotherapy treatment without surgery typically involves weekly sessions with a physical therapist in addition to exercises at home. Depending on the patient, exercises may target the quadriceps, hamstrings, calves, hips and pelvis muscles, with the aim to improve knee-

cap alignment and range of motion of the joints. Many patients have less knee pain after six to eight weeks, but physiotherapy treatment may take longer for others, especially those who need to shed excess body weight.

The lack of benefit with arthroscopic surgery may be due to the fact that many patients suffer from osteoarthritis, a degeneration of joint cartilage and the underlying bone, as well as a thinning and weakening of the meniscus. Even if a meniscal tear shows up on an MRI scan, it may not be the source of the patient’s pain, Khan said. “Orthopedic surgeons are often challenged to determine the true cause of patients’ symptoms: the meniscal tear, osteoarthritis or a combination of both.”

Treatments for osteoarthritis are the same as non-surgical interventions for a damaged meniscus. They include weight loss and physiotherapy, often combined with anti-inflammatory medications and cortisone injections to help reduce pain.

Keyhole surgery may help younger patients in their 20s and 30s with meniscal tears from acute sports injuries, according to a 2013 Finnish study. But older patients with knee pain should try alternative treatments for at least three months before considering surgery, Khan said.

Patients with time-worn knees may benefit from using custom orthotics in their footwear, Hunt said. Often, physiotherapists can help patients strengthen specific muscles to stabilize the knee joint, or adjust their movement patterns to reduce the load on the knee joint. “Exercise is the cornerstone treatment,” he added.

15 things you didn't know about back pain continued....



5 Bed rest is not helpful

In the first few days after the initial injury, avoiding aggravating activities may help to relieve pain, similar to pain in any other part of the body, such as a sprained ankle. However, there is very strong evidence that keeping active and returning to all usual activities gradually, including work and hobbies, is important in aiding recovery.

In contrast, prolonged bed rest is unhelpful, and is associated with higher levels of pain, greater disability, poorer recovery and longer absence from work. In fact, it appears that the longer a person stays in bed because of back pain, the worse the pain becomes.

6 More back pain does not mean more back damage

This may seem strange, but we now know that more pain does not always mean more damage. Ultimately, two individuals with the same injury can feel different amounts of pain. The degree of pain felt can vary according to a number of factors, including the situation in which the pain occurs, previous pain experiences, your mood, fears, fitness, stress levels and coping style. For example, an athlete or soldier may not experience much pain after injury until later when they are in a less intense environment.

Furthermore, our nervous system has the ability to regulate how much pain a person feels at any

given time. If a person has back pain it might be that their nervous system has become hypersensitive and is causing the person to experience pain, even though the initial strain or sprain has healed.

This can mean the person feels more pain when they move or try to do something, even though they are not damaging their spine.

Once people with back pain can distinguish between the 'hurt' they are feeling from any concerns about 'harm' being done to their back, it is easier to participate in treatment.

7 Surgery is rarely needed

Only a tiny proportion of people with back pain require surgery. Most people with back pain can manage it by staying active, developing a better understanding about what pain means, and identifying the factors which are involved in their pain.

This should help them continue their usual daily tasks, without having to resort to surgery.

On average, the results for spinal surgery are no better in the medium and long-term than non-surgical interventions, such as exercise.

8 Schoolbags are safe - worrying about schoolbags might not be

Many people believe that children carrying a heavy schoolbag might cause back pain. However, research studies have not found this link, revealing no differences in schoolbag weight between those children who do and do not go on to develop back pain. However, if a child - or their parent - believes that their schoolbag is too heavy, the child IS more likely to develop back pain, highlighting the importance of fear in the development of back

pain.

Given concerns about inactivity and obesity in children, carrying a schoolbag may actually be a simple healthy way for children to get some exercise.

9 The perfect sitting posture may not exist

Should we all sit up straight? Contrary to popular belief, no specific static sitting posture has been shown to prevent or reduce back pain. Different sitting postures suit different people, with some people reporting more pain from sitting straight, others from slouching. So while slouching gets a bad press, there is no scientific evidence to support this. In fact, many people with back pain can adopt very rigid postures (eg sitting extremely upright) with little variation.

The ability to vary our posture, instead of maintaining the same posture, together with learning to move in a confident, relaxed and variable manner is important for people with back pain.

10 Lifting and bending are safe

People with back pain often believe that activities such as lifting, bending and twisting are dangerous and should be avoided. However, contrary to common belief, the research to date has not supported a consistent association between any of these factors and back pain.

Of course, a person can strain their back if they lift something awkwardly or lifting something that is heavier than they would usually lift. Similarly, if a person has back pain, these activities might be more sore than usual. This, however, does not mean that the activity is dangerous or should be avoided.

(continued on page 5)

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Almonds for Your Heart



“This study reminds us that the more muscle mass you have (versus fat mass), the higher your metabolism and the more calories you burn.”



A handful of almonds a day keeps the cardiologist away? Eating almonds has been linked to heart health for many years. Health experts believe it's due to the poly and mono unsaturated fats and the antioxidant content. The powerhouse nuts also offer a good source of B vitamins, manganese and vitamin E. We know that almonds are good for your heart, but have you ever wondered how exactly they protect it? New research sheds light on the mechanism behind these heart healthy nuts.

In a study conducted by scientists at Aston University, researchers put three groups of men on diets with 50g of almonds: healthy middle-aged men (50g almonds per day), healthy young men (50g almonds per day) and young men with two or more cardio-

vascular risk factors (50g almonds per day). They maintained this diet for four weeks and were compared to a control group of men who followed their normal diet. The researchers tested the participants' blood for alpha-tocopherol (a form of vitamin E) and cholesterol.

Before the study, the ratio of alpha-tocopherol and cholesterol in the blood was not significantly different between groups. After four weeks of the specified diets, however, the ratio was elevated for those who ate the almonds. The researchers determined that after eating the almonds daily for four weeks, not only was more alpha-tocopherol found in the blood, but the blood vessels also more easily expanded during blood flow, signifying an improved flow-mediated dilation in all groups

consuming the almonds. Systolic blood pressure was reduced in all test groups as well. The increased blood alpha-tocopherol along with the improved flow-mediated dilation leading to decreased systolic blood pressure may reduce risk for cardiovascular disease.

Bottom Line: Adding one to two ounces (a small handful) of almonds to your diet can help decrease risk factors for cardiovascular disease. This study also showed benefits at both young and older ages, as well as among men with cardiovascular risk factors. Add almonds, or other heart healthy nuts, to your diet by eating them in place of an unhealthy snack, adding them to your breakfast oatmeal, using them in place of croutons on a salad, or even adding them to brown rice at dinner.

Weight Training for Belly Fat

Frustrated with stubborn belly fat? You're not alone. While you may be discouraged by the bulge, excess weight around the middle carries more concerns than just how your pants fit. Excess weight in your abdomen is associated with metabolic conflicts as well as other health problems like type 2 diabetes and cardiovascular disease. But don't fret -- a new study published by the Harvard School of Public Health demonstrates that exercise can help reduce belly fat and the risks associated with it.

In this study, 10,500 healthy men over the age of 40 reported their physical activity, waist circumfer-

ence and body weight in 1996 (before the study) and in 2008 (when the study ended), as well as periods in between. The researchers then analyzed the activity levels over the 12 years to determine any changes. They found that those who increased the amount of time they spent weight training by 20 minutes, had less gain in the size of their waist when compared to those participating in moderate-vigorous aerobic exercise. The most optimal results were seen in those who incorporated the 20 minutes of weight training a day to their normal exercise, including aerobic exercise. Not surprisingly, those

who spent more time doing sedentary activities such as watching television saw growth in their waistlines.

Bottom Line: Abdominal weight may seem tough to get rid of, but incorporating weight training into your daily exercise routine can help. This isn't just doing crunches on a mat! Do resistance exercises (body weight exercises like pushups count.) that target all major muscle groups. This study reminds us that the more muscle mass you have (versus fat mass), the higher your metabolism and the more calories you burn. Split your time between the treadmill and the free weight section instead of dedicating your whole workout to cardio exercise!

15 things you didn't know about back pain continued....

While a lifting or bending incident could initially give a person back pain, bending and lifting is normal and should be practiced to help strengthen the back, similar to returning to running and sport after spraining an ankle.

11 Avoiding activities and moving carefully does not help in the long-term

It is common, especially during the first few days of back pain, that your movement can be significantly altered. This is similar to limping after spraining your ankle, and generally resolves as the pain settles. While initially hard, getting back doing valued activities which are painful, or feared, is important. Many people, after an episode of back pain, can begin to move differently due to a fear of pain or a belief that the activity is dangerous. Such altered movement can be unhealthy in the long term and can actually increase the strain on your back.

12 Poor sleep influences back pain

When someone has pain, a good night's sleep can be hard to get. However, it works both ways as sleep problems can lead to back pain in the future. In the same way that poor

sleep can make us more stressed, give us a headache, make us tired or feel down, it can also cause or prolong back pain. So, improving sleeping routine and habits can be very helpful in reducing pain.

13 Stress, low mood and worry influence back pain

How we feel can influence the amount of pain we feel. Back pain can be triggered following changes in life stress, mood or anxiety levels.

In the same way that these factors are linked to other health conditions like cold sores, irritable bowel syndrome and tiredness, they have a very large effect on back pain. As a result, managing our stress, mood and anxiety levels through doing things we enjoy, and engaging in relaxation can be really beneficial in helping back pain.

14 Exercise is good and safe

Many people with pain are afraid of exercise and avoid it as they think it may cause them more problems. However this is not true! We now know that regular exercise helps to keep you and your body fit and healthy, and actually reduces pain and discomfort. It relaxes muscle tension, helps mood and strengthens the immune system once started gradually.

All types of exercise are good, with no major differences in effectiveness between them - so pick one you enjoy, can afford and which is convenient.

Walking, using the stairs, cycling, jogging, running and stretching are all good and help relax all the tense muscles in your body.

When you are in pain, starting exercise can be very hard. Under-used muscles feel more pain than healthy muscles. Therefore, if feeling sore after exercise, this does not indicate harm or damage to the body.

15 Persistent back pain CAN get better

Since back pain is associated with many factors that vary between individuals, treatments that address the relevant factors for each individual can be effective. Failing to get pain relief after lots of different treatments is very frustrating and cause people to lose hope.

However, this is very common as most treatments only address one factor, for example someone goes for a massage for their sore muscles, but doesn't address their sleep or fitness or stress levels.