



The Liker Health Report

Keeping People Focused on Staying Fit & Healthy

Winter 2009

The Liker Health Report is a quarterly publication intended to raise awareness of health-related issues and to encourage readers to take charge of their health and live healthier, more fulfilling lives.

The Heart of the Matter: CHILDREN & PETS

Many people grew up with a traditional family pet, such as a dog or cat, and now want their own children to experience the life lessons taught through pet ownership. Unfortunately, allergies to pet hair and dander sometimes prevented families from bringing a pet into the home. In decades past, family pets, particularly dogs, lived and slept outside in a doghouse, barn, or yard. As people brought their pets inside the house, the incidence of allergies increased. The allergens had always been present, but now, the hair and dander became entwined with bed linens, carpet, clothing, and other household items.

Pets carry disease-causing bacteria, viruses, parasites and fungi that can be transmitted to humans. The instruments of transmission are feces, saliva, and dander. Children younger than five years are especially at risk of disease because their immune systems are not fully developed. A mild infection in an adult could be very serious, even life-threatening for an infant or young child.

With today's increasing popularity and availability of "non-traditional" pets (rodents, reptiles, amphibians, monkeys), parents may be unknowingly exposing their children to infections. Reptiles, amphibians, turtles, baby chickens and hamsters carry various strains of *Salmonella* and shed it in their feces. The macaque monkey carries the herpes B virus, and some rodent species can transmit the virus that causes human monkey pox. Experts advise parents speak to their pediatrician and a veterinarian before bringing any exotic pets into their home.

Your Family's New Pet

Whether you purchase a pet from a breeder or a pet store or adopt one from a shelter, be sure that the business is reputable and vaccinates all its animals. After you get your pet, take it to a veterinarian for a complete check-up and any necessary vaccinations.

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Staying Healthy with Pets

- ▶ Wash your hands after touching your pet, its cage, litter box, or tank, or its toys.
- ▶ Wear gloves when cleaning up animal waste and dispose of promptly.
- ▶ Keep pets out of the kitchen and areas where food is prepared and consumed.
- ▶ Do not bathe your pet in the bathtub or kitchen sink; wash your pet outdoors or employ a professional groomer.
- ▶ Keep your pet's living area clean.
- ▶ Do not kiss your pet and avoid letting them lick your face.
- ▶ Do not share food with your pet (i.e., putting food in their mouth and then touching your mouth with your fingers).
- ▶ Do not allow your pet to sleep on or in your bed.
- ▶ Keep your pet up-to-date on all its vaccinations.
- ▶ Use topical or oral medication for flea & tick control; avoid flea collars if you have children, as they can ingest the chemicals by touching the collar.

Your Lifestyle: OPIOID PAINKILLERS

No one plans to become addicted to prescription painkillers, but the unfortunate reality is that many people do. People who take prescription painkillers responsibly can sometimes find themselves needing larger and larger quantities of drugs to control their pain. A car accident, a slip and fall, or a major surgery might be the situation which initiates the downward spiral into dependence* and abuse.

Opioids are analgesics, or pain-relieving medications which require a physician's prescription. Opioids are prescribed for moderate to severe chronic pain (i.e., back pain) and not acute pain (i.e., an everyday headache).

This group of narcotics includes morphine (Kadian®, Avinza®), codeine, hydrocodone (Vicodin®),

oxycodone (OxyContin®, Percodan®, Percocet®). Vicodin® and OxyContin® are the two most commonly abused opioids.

Opioids block a person's perception of pain by attaching to opioid receptors in the brain, spinal cord, and gastrointestinal tract. Opioids can cause drowsiness, confusion, depression, depressed respiration, nausea, and constipation when taken in the prescribed dosage. When used for the short-term management of pain, opioids very rarely cause dependence and are effective in managing a patient's pain. Taking a dose larger than what was prescribed can depress respiration to the point that the patient stops breathing completely and dies. Long-term use can lead to physical dependence, an increased risk of choking, cessation of menstrual periods, and decreased fertility in women.

*The term "addiction" is viewed with a negative connotation and is falling out of favor with drug rehabilitation professionals; the preferred term is "dependence" as it relates to the brain's physical dependence on opioids.



Physical dependence occurs when the brain & body adapts to a drug after long-term use. If the drug dosage is reduced or stopped completely, it will cause the withdrawal syndrome. The withdrawal syndrome includes the following symptoms:

restlessness
insomnia
involuntary leg movements
cold flashes
diarrhea
vomiting
muscle and/or bone pain

Because opioids also affect areas in the brain that are responsible for pleasurable feelings, they can also induce euphoria, similar to heroin. This is particularly true if patients do not take the drug exactly as prescribed and/or alter the drug to remove its time-release properties, thereby getting the drug's pleasure effect all at once.

Prescription painkiller abuse has become more prevalent in today's society, perhaps in part because patients and healthcare professionals underestimated the potential for dependence. Patients believed that if their doctor prescribed it for them, then it must be safe. Many physicians were happy to have an effective and legal narcotic in their arsenal to treat patients' pain; however, the data on how many people were becoming dependent didn't surface immediately. The healthcare industry failed to fully understand the impact of prescription painkillers on human drug-seeking behavior.

Signs of Prescription Drug Abuse

- ▶ *Patients take higher doses than what his/her doctor prescribed*
- ▶ *Patients "lose" their prescriptions so doctors must write more*
- ▶ *Patients get multiple prescriptions from multiple doctors*
- ▶ *Patients steal or forge prescriptions*
- ▶ *Patients experience excessive mood swings*

The first step in overcoming one's dependence on prescription painkillers is admitting that you have a problem and seeking professional help. Your physician can recommend medically supervised opioid detoxification and counseling programs. Today's treatment programs stress compassion and respect for patients because they understand that if it were easy to stop using drugs, no one would become addicted in the first place.

Did You Know?



In 1991, doctors wrote 40 million prescriptions for OxyContin® and Vicodin® and in 2007, they wrote 180 million prescriptions.

Playing It Safe: INFLUENZA

Viruses (and bacteria) love the cold weather of the winter months, and if you live in the northern latitudes, prolonged periods of winter weather are ideal for viruses to thrive. Holiday travel and family celebrations are the ideal time for viruses and bacteria to spread among people in confined, indoor spaces. Stress adds to the mix, so be aware of the symptoms and take care to minimize your exposure. However, if you returned from a holiday get-together and exchanged more than just gifts, you might have influenza (“the flu”). Flu symptoms usually appear very quickly, can be quite intense, and may last up to two weeks.

- ▶ Fever (usually high)
- ▶ Headache
- ▶ Tiredness (can be extreme)
- ▶ Body aches
- ▶ Muscle aches
- ▶ Runny or stuffy nose
- ▶ Cough
- ▶ Sore throat
- ▶ Diarrhea & vomiting (common in children)

If you get the flu, follow these guidelines to speed your recovery:

- ▶ Rest.
- ▶ Drink plenty of non-caffeinated liquids.
- ▶ Avoid using alcohol and tobacco.
- ▶ Take medication to relieve the symptoms of flu (i.e., Tylenol). **Never give aspirin to children or teenagers** who have flu-like symptoms – and particularly fever – without first speaking to your doctor.
- ▶ Stay home from work to avoid spreading the flu to co-workers; keep children out of school or day care programs.
- ▶ WASH YOUR HANDS FREQUENTLY.

Did You Know?



Every year, approximately 36,000 Americans, usually the elderly, die from the flu and more than 200,000 people are hospitalized.

Many people take over-the-counter medications and/or herbal supplements when they get the flu or a cold. A lot of these products promise to shorten the duration and intensity of viral infections and to enhance your immune system. While there is little scientific evidence to support the claims of products like Airborne® and Emergen-C®, there are plenty of people who swear by them. These products have no ability to kill the viruses, but they may stimulate a person’s immune system to fight the viruses. There are generally no adverse health risks so long as the maximum dosage is not exceeded. Consult a physician if symptoms worsen or do not go away.

Airborne® contains a blend of herbal extracts, vitamins, electrolytes, amino acids and antioxidants to boost the immune system in the event that you are exposed to germs and viruses.

Emergen-C® is a blend of vitamin C, 32 minerals and electrolytes. Each dose contains 1,000 milligrams of vitamin C. It should not be taken more than the recommended 3 times daily since too much vitamin C can cause gastric upset.

Zicam® is a nasal gel containing zinc for decreasing the duration and severity of cold symptoms. Some people have reported losing their sense of smell after using Zicam® so caution is recommended.

OTC Robitussin-Cough® medicine loosens the mucus in the chest; however, if the mucus is deep within the chest, Robitussin can dry out the mucus membranes and promote pneumonia. Any severe cough lasting more than 2-3 days should be evaluated by a physician.

Advil Cold & Sinus® has an anti-inflammatory effect plus a decongestant to help in the early stages of a cold. Advil Cold & Sinus and similar OTC medications should not be given to children under age 2 as they can cause heart irregularities, irritability, and insomnia.

Most healthy adults will recover on their own within a week or two. Children, the elderly, and people with compromised immune systems, however, require special care from their primary care doctor.

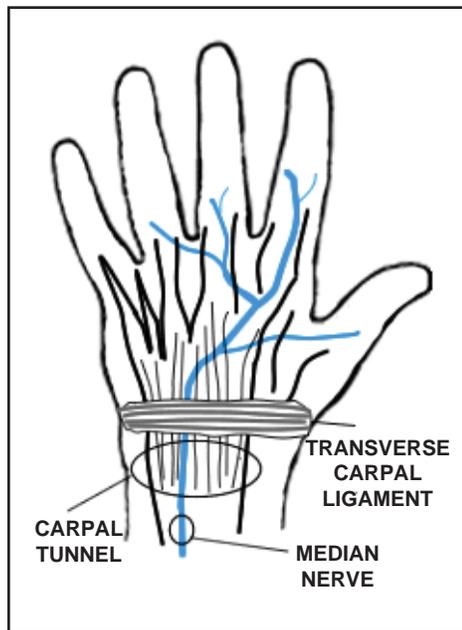
The Inside Story: CARPAL TUNNEL SURGERY

When non-surgical and alternative therapies no longer bring relief to someone with carpal tunnel syndrome (CTS), surgery is necessary. The criteria a physician bases his/her recommendation on are:

- ▶ persistent numbness and pain in the fingers, hand or wrist
- ▶ loss of strength when gripping or pinching an object
- ▶ deterioration of the hand muscles

Surgical horror stories are one of the major deterrents to patients undergoing the operation. Like all medical procedures, risks do exist, however, in the case of CTS, postponing surgery may actually reduce the chances of a 100-percent successful operation and recovery.

In CTS surgery, the surgeon cuts the transverse carpal ligament which causes the carpal tunnel to expand. When the tunnel expands, the pressure which was once on the median nerve is relieved and CTS symptoms are either greatly reduced or eliminated completely.



After cutting the transverse carpal ligament, some surgeons will remove any inflamed tissue surrounding the median nerve; this is commonly found in patients who have arthritis. The incision can be stitched together in one of two ways. First, the skin and underlying tissues are closed over the transverse carpal ligament, leaving the carpal tunnel uncovered. Second, the transverse carpal ligament can be lengthened and reattached and then covered with the sutured skin and tissues.

The two types of CTS surgery available to patients are open-release and endoscopic release. Neither procedure requires general anesthesia, but your surgeon may prefer to lightly sedate you. He/she will also inject a numbing medication into the palm and place a tourniquet around the arm to reduce blood flow to the hand prior to making an incision. Both open-release and endoscopic release surgery are out-patient procedures and take approximately ten minutes to perform. The decision to perform one form of the surgery over the other depends on whether the patient has had previous wrist surgery; has a pre-existing condition such as rheumatoid arthritis or diabetes; the anatomical characteristics of the carpal tunnel and median nerve are unusual; or there is a possibility of a tumor on the median nerve.

Open-release surgery

The open-release procedure is the traditional method for repairing CTS and can be done for any patient, regardless of the factors listed above. Surgeons make a 2-inch incision through the transverse carpal ligament, starting at the middle of the palm extending into the wrist. The tissue is pulled back so that the entire carpal tunnel is visible and inspected for any abnormalities, such as a median nerve tumor. If medically appropriate, surgeons can also utilize a 1-inch incision which does not cross the wrist to minimize scarring and pain. The advantages are that the open-release procedure is safe and effective for the patient and technically simple for the surgeon.

Endoscopic surgery

The endoscopic procedure utilizes more modern technology of specialized surgical instruments and a tiny video camera (an endoscope). Surgeons make an incision in the palm and one in the wrist, each about one-half an inch long. The endoscope and instruments are passed through the incisions so the surgeon can watch the video monitor as he locates and cuts the transverse carpal ligament.



Did You Know?

After surgery, the recurrence of carpal tunnel syndrome is very rare.

Recovery for both types of CTS surgery includes prescription pain medication or over-the-counter pain for a few days. Endoscopic release patients generally have less pain and recovery is quicker. The scar formed by the incision in either procedure may feel tender for as long as a year, however, massaging it will lessen the pain. Most doctors recommend patients wear a splint or brace on the hand for about two weeks to help protect the wrist as it heals; this is more common if the open-release procedure was performed. Additionally, in the two months following surgery, patients should not lift anything heavier than ten pounds. The patient's doctor will recommend the amount of time off from work depending on the type of work a patient does (desk job vs. heavy manual labor) and which procedure was performed.

Rehabilitation therapy begins the same day as surgery. Patients are encouraged to do finger and wrist exercises and return to daily activities which require the use of the hand and wrist. The danger in not moving the fingers and wrist is that the nerves, tendons, and ligaments will get stuck in one position and heal improperly. The majority of patients do not require a structured physical therapy program. Patients who undergo endoscopic release surgery typically go back to work sooner than those who have open-release surgery.

The two determinants of whether a patient has open-release or endoscopic surgery are (1) the surgeon's experience and preference and (2) the patient's preference. By educating yourself on both procedures, you can make an informed choice and select an experienced surgeon who specializes the surgery you prefer. If you choose the endoscopic procedure, there is always the possibility that an unforeseen problem during surgery will necessitate

PROs and CONs of CARPAL TUNNEL SURGICAL PROCEDURES		
	<u>OPEN RELEASE</u>	<u>ENDOSCOPIC</u>
Pre-existing conditions & anatomical abnormalities	recommended; surgeon has a good view of the carpal tunnel	not recommended
Surgical complications	low	low; possible damage to the median nerve or incomplete separation of the transverse carpal ligament
Scarring	moderate; 1-2 inch	minimal; 1/2 inch
Post-operative pain	moderate; scar tenderness for up to 1 year	minimal; scar tenderness for up to 1 year
Recovery time	moderate; usually 1 month	low; usually 1-2 weeks
Financial cost	moderate	high; more expensive due to specialized surgical instruments
CTS symptom relief	highly successful	highly successful
Long-term success rates	excellent	excellent

a switch to the open-release procedure. Because you are not under general anesthesia, the surgeon will inform you of the change.

Open-release surgery has been available significantly longer than endoscopic surgery. Patients who may have had open-release on one hand twenty years ago, for example, may now choose endoscopic surgery on the other hand. For patients who have had both types of surgery, about eight-five percent of them prefer the endoscopic procedure. This is due to the less invasive technique, smaller scar, less pain, and quicker recovery time.

Many people have carpal tunnel syndrome in both hands. Once the decision has been made to have surgery, the patient must decide to have surgery on one hand or both during the same operation. Since the recovery time is about the same, there is an advantage to having both hands done at the same time. Patients will only need to take off work for one period of time. Additionally, the financial cost is lower since there's only one stint in the operating room instead of two.

Personal Health: MALE INFERTILITY

Male infertility is more common than most people think and there's a misconception among couples and their healthcare providers alike that the cause of infertility is a female problem. When a couple is having difficulty conceiving a baby, the first "suspect" is the woman. However, in about 40 to 50 percent of infertile couples, male infertility plays some role. Male infertility is caused by a man's inability to either (1) produce or (2) deliver sperm which is fully functioning and capable of impregnating a woman's egg.

Under normal circumstances, sperm cells (spermatozoa) develop in the testicles via a process called spermatogenesis which involves multiple cell divisions over a period of months. The spermatozoa leave the testicles and continue to develop in the epididymis. The now mature sperm travel through the vas deferens and urethra when a man ejaculates. Two factors are necessary for healthy and mature sperm -- the intact genetic material and a favorable environment. Viable sperm must live in the presence of sufficient testosterone levels and a somewhat lower scrotal temperature.

What causes male infertility?

Male infertility can be the result of one or a combination of factors including reproduction system defects, hormone deficiencies, genetics, trauma, and illness.



Sperm disorders -- the most common cause of male infertility. Sperm can be underdeveloped, abnormally shaped, unable to swim properly, or simply produced in very low quantity ("low sperm count").

Variocelles -- the most correctable cause of male infertility. Dilated scrotal veins which otherwise impair sperm development can be repaired with minor surgery.

Immunologic response -- A man's own antibodies attack his sperm, thereby making it more difficult for sperm to swim to the woman's uterus and impregnate the egg. Antibodies may be the result of injury, infection, or surgery.

Obstruction -- Any blockage in the sperm's normal pathway can hinder ejaculation; obstruction may be caused by physical developmental problems, inflammation, repeated infections, or scar tissue from a prior surgery or sexually transmitted disease.

Retrograde ejaculation -- Semen pushes up into the bladder instead of out the penis when the nerves and muscles in the bladder neck fail to close during orgasm. Disease, prior surgery, or medications can affect the nervous system.

Genetic abnormalities -- Defective or missing genes on the man's Y-chromosome can impact his fertility.

Pituitary gland hormones -- Very low hormone levels are insufficient to stimulate the testicles to make sperm. Steroids can further impede hormone production.

Medications -- Some drugs can adversely affect sperm production, function, and ejaculation. These include medications to treat infections, depression, arthritis, hypertension, cancer, and gastrointestinal problems. The effects are usually temporary if the medication is discontinued.

Cigarette smoking -- Habitual smoking decreases the size, "swimming ability", and the DNA of sperm cells. Secondhand smoke may also reduce sperm count. Marijuana and cocaine can have similar effects.

Environmental toxins -- Radiation therapy for cancer treatment and heat or chemical exposure can temporarily hamper sperm production.

Increased scrotal temperature -- Some research suggests that a raised scrotal temperature may result in a low sperm count. A man's scrotal temperature increases when he wears tight-fitting jeans or briefs, and/or spends time in a hot tub.

Continued on page 7.



Did You Know?

At least 20% of all couples' infertility is due solely to male-related factors.

INFERTILITY *continued from page 6*

If after one year of regular intercourse a couple is unable to become pregnant, they should seek medical advice. Since there are numerous potential causes of male infertility, diagnosis requires a comprehensive evaluation (for both men and women). A woman should consult her gynecologist and a man should consult a urologist.

The first step in a male fertility assessment includes a thorough medical history and physical exam, followed by a semen analysis. A semen sample (via ejaculation) is evaluated for the (1) volume, (2) concentration of sperm, and (3) percentage of sperm cells that are motile (able to swim normally). Depending upon the results of the semen analysis, further testing may be required. Low sperm count is common and usually warrants hormonal or genetic testing if smoking, prescribed medications, and illicit drug use can be ruled out. The absence of sperm may require either (1) a testicular biopsy to determine whether sperm cells are actually being manufactured or (2) an ultrasound to pinpoint any blockage in the reproductive tract.

Treatment for male infertility depends on the cause; unfortunately, it may be impossible to identify the cause in every case. Surgery to repair the varicocele is highly successful as are medications to correct immunologic infertility and retrograde

Male Fertility-Promoting Lifestyle Behaviors

- ▶ Stop smoking.
- ▶ Consume alcohol in moderation.
- ▶ Do not use marijuana or cocaine.
- ▶ Eat a well-balanced diet.
- ▶ Exercise regularly.
- ▶ Maintain a healthy body weight.
- ▶ Manage underlying health conditions, such as diabetes.
- ▶ Avoid situations that increase scrotal temperature, such as wearing tight fitting briefs and jeans or prolonged use of hot tubs and saunas.

ejaculation. Hormone replacement therapy with gonadotropin injections shows success but may take up to one year to restore fertility.

If there is no identifiable cause of the infertility,



The Medicine Cabinet

Monodox®

Treatment of Bacterial Infections

Trade Name: Doxycycline (dox i sye' kleen)

Drug Classification: tetracycline antibiotic

Purpose: used to treat pneumonia and respiratory tract infections; Lyme disease; acne; infections of skin, genital, and urinary systems; and anthrax (after exposure by inhaling anthrax spores).

Action: prevents the growth and spread of bacteria.

Dispensing Method: capsule, tablet, or a syrup taken by mouth once or twice a day, 12 hours apart.

Major Precautions: antacids, calcium supplements, iron products, and laxatives containing magnesium make doxycycline less effective. Doxycycline should be taken 1 hour before or 2 hours after antacids (including sodium bicarbonate), calcium supplements, and laxatives containing magnesium; and taken 2 hours before or 3 hours after iron preparations and multi-vitamins containing iron. Avoid prolonged exposure to sunlight because doxycycline can make skin more sensitive to sunlight.

Side Effects: diarrhea; itching of the rectum or vagina; sore throat; sensitivity to sunlight. **SERIOUS:** severe headache; blurred vision; skin rash or hives; difficulty breathing or swallowing; yellowing of the skin or eyes; dark-colored urine; light-colored bowel movements; bloody stools; loss of appetite; upset stomach, stomach pain or vomiting; extreme tiredness or weakness; confusion; decreased urination. Notify your doctor if any symptoms do not go away or worsen.

As with any medication, always follow your doctor's instructions, and if you have any problems, side effects, or questions, follow up with your doctor or pharmacist.

healthy lifestyle behaviors should be adopted (see *list at right*) to maintain sufficient quantities of healthy sperm. Fertility treatments in a woman can also help compensate for a low sperm count in her partner. If these treatments are unsuccessful, assistive reproductive techniques, such as in vitro fertilization, offer alternatives to couples wanting to conceive a child.

What's the Message?

FOR YOUR CHILDREN'S HEALTH:

Pets can transmit diseases to children which threaten their immature immune systems.

Check with your pediatrician and a veterinarian before bringing any exotic pets into your home.

FOR YOUR PAINKILLER AWARENESS:

Opioid painkillers are effective for moderate to severe pain management but can cause dependence if misused or abused.

If you recognize drug-seeking behaviors in a loved one or if you have a problem with prescription painkillers, seek professional help.

FOR YOUR INFLUENZA AWARENESS:

Hand washing is the single, most effective way to prevent the spread of germs.

Children, the elderly, and people with compromised immune systems who get the flu need special care from their primary care doctor.

FOR YOUR CARPAL TUNNEL SYNDROME AWARENESS:

Surgery provides effective, permanent relief for the symptoms of carpal tunnel syndrome.

Postponing surgery can decrease the chances of a 100% successful operation and recovery.

FOR YOUR MALE INFERTILITY AWARENESS:

Both the man and the woman should be evaluated if they are having problems conceiving a baby.

Simply changing a few lifestyle behaviors may improve a man's fertility.

Keeping Stress in Check

Incorporate activities that help you relax into your daily routine.

Dear Dr. Liker... How can I locate a clinical trial near where I live?

ClinicalTrials.gov is a website that will help you locate federally and privately funded clinical trials that are seeking volunteers for research on various diseases and health conditions. The ClinicalTrials.gov database contains over 65,000 trials sponsored by the United States National Institutes of Health, other government agencies, the pharmaceutical industry, universities, foundations, and other health organizations from around the world. Studies are currently being conducted in all fifty states and in 161 countries.

This confidential website allows users to search for clinical trials by condition, drug intervention, study sponsor, and study location. Listings contain information about the purpose of the study; the status of the recruiting process (active/inactive); the participation criteria; the location of the trial; and the researcher's contact information if you want to participate. No registration or personal identification is required to use the website.

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