



The Liker Health Report

Keeping People Focused on Staying Fit & Healthy

Winter 2010

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: VICODIN & DEAFNESS

When prescription medications cause hearing loss, they are said to be *oxotoxic*. Oxotoxic drugs include aminoglycoside antibiotics to treat tuberculosis; diuretics to treat congestive heart failure; platinum-based chemotherapy drugs for cancer; some non-steroidal anti-inflammatory drugs (NSAIDs); anti-malarial drugs; and painkillers which are a hydrocodone-acetaminophen combo drug. Despite the serious risk of permanent hearing loss, these medications are highly efficacious in treating or managing serious conditions and there is currently a lack of non-oxotoxic alternatives.

Vicodin® is a commonly prescribed painkiller which contains the synthetic opiate hydrocodone and the mild analgesic acetaminophen (Tylenol®). Hydrocodone is nearly as effective in relieving pain as morphine, which makes Vicodin® a valuable tool for treating patients' pain. In 2006, American doctors wrote more than 70 million prescriptions for Vicodin®. Long-term use (and abuse) of Vicodin® is due in part to its tolerance, dependence and additive properties.

Doctors at the world-reknown House Ear Institute in Los Angeles made the connection between rapidly progressive hearing loss, leading to deafness in patients who took more that the prescribed dose of Vicodin®. The normal adult dosage is one or two tablets every four to six hours, not to exceed eight tablets in any 24-hour period. Oxotoxic drugs cause hearing loss by targeting the outer hair cells of the inner ear, thereby killing the auditory cells. House Ear Institute researchers don't know exactly how this cell death occurs on a molecular level, but they believe that a synergistic relationship between hydrocodone and acetaminophen is responsible. Stress may also play a role by activating a genetic component. Interestingly, patients taking natural opiates, such as morphine or codeine, do not experience hearing loss.

With the potential for Vicodin® dependence and addiction, adults should take care to follow the prescribing directions carefully. Know the signs of tolerance and dependency; these are the body's normal reaction to the drug. If the prescribed dose no longer relieves your pain, or your injury has long healed but you still crave the drug, seek help and discuss your options with your physician. No one wants to go deaf in the prime of life.

Parents should be aware of the crisis of teen prescription drug abuse. The widespread use of prescription painkillers by parents makes these the drug of choice for teenagers. Protect children by keeping all prescription medications locked away and educate yourself about drugs and the signs of drug use. Talk with your children so they will feel comfortable bringing their questions, concerns and problems to you.

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Your Lifestyle: NON-ALCOHOLIC FATTY LIVER DISEASE

What is non-alcoholic fatty liver disease?

Non-alcoholic fatty liver disease is the accumulation of fat in the liver cells of non-drinkers or those who drink very little alcohol. A normal liver contains some fat, but if it contains more than 10% fat by weight, then it is classified as a fatty liver. Many people have this condition and it does not cause any symptoms or have any adverse health consequences.

A relatively small percentage of people with non-alcoholic fatty liver disease develop **non-alcoholic steatohepatitis (NASH)** which is the result of inflammation in the liver caused by the excess fat. NASH can impair normal liver function, and can lead to **non-alcoholic fatty liver disease-associated cirrhosis**. The inflammation causes scarring and hardening of the liver which may in time lead to liver failure.

What causes a fatty liver?

Non-alcoholic fatty liver disease occurs when the liver is unable to break down dietary fats, thereby resulting in a build-up in the liver. It is most commonly associated with obesity because the dietary fat intake exceeds the body's requirement and ability to process it. Fatty livers tend to be associated with lifestyle diseases such as type 2 diabetes, metabolic syndrome, high cholesterol and elevated triglycerides, which are also common in overweight and obese people. However, in some people, even a relatively small amount of excess body fat can increase the amount of fat stored in the liver.

What are the symptoms of a fatty liver and how is it diagnosed?

Non-alcoholic fatty liver disease rarely produces any symptoms which contributes to it going undetected. When symptoms do appear, usually in advanced stages, an individual may experience pain in the upper right abdomen, weight loss, and/or fatigue. If symptoms persist, a doctor should be consulted. By palpating the abdomen, a doctor can determine whether the liver is enlarged. Blood tests to evaluate

liver function (liver enzyme tests) and imaging tests (CT scan or MRI) are utilized in a diagnosis of fatty liver disease. A liver biopsy may be performed if the doctor suspects inflammation and cirrhosis of the liver.

How is non-alcoholic fatty liver disease treated?

There are no standard medical or surgical treatments for non-alcoholic fatty liver disease. Doctors recommend treating the risk factors that may have contributed to a patient's fatty liver, thereby preventing further damage and possibly reversing some of the existing liver damage. Overweight and obese patients should make lifestyle choices that will help them lose weight safely and permanently -- no more than two pounds per week. Eating a healthy, low-fat diet will promote weight loss as well as decrease the amount of fat the liver must process, lower cholesterol and triglyceride levels, and control blood glucose levels. Minimize the saturated (animal) fats and processed foods and focus on fruits, vegetables, whole grains, and healthy unsaturated fats (fish, olive oil, nuts) instead. Avoid alcohol to further protect your liver.

RISK FACTORS

- ✓ Obesity
- ✓ High cholesterol
- ✓ Elevated triglyceride levels
- ✓ Metabolic syndrome
- ✓ Type 2 diabetes
- ✓ Wilson's disease
- ✓ Rapid weight loss
- ✓ Gastric bypass surgery
- ✓ Malnutrition
- ✓ High doses of vitamin A
- ✓ Some medications (methotrexate, cortisone, prednisone, tetracycline)
- ✓ Exposure to toxins, chemicals & pesticides

If a prescription medication is causing fatty liver disease, the doctor will switch the patient's medication. Always follow the dosing instructions on any prescribed or over-the-counter medication which may have side effects affecting the liver.

Who should be concerned?

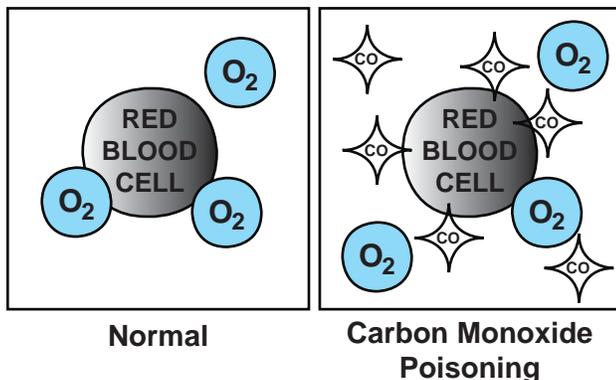
Certainly, anyone who is overweight or obese should be concerned about non-alcoholic fatty liver disease, but now there is a growing concern caused by the epidemic of childhood obesity. A recent study found that approximately 25% of overweight children with a fatty liver will develop non-alcoholic steatohepatitis in childhood or by their 20s. Of these, 20% will likely develop cirrhosis as young adults. Even more alarming, the study predicts a life expectancy of only seven years after the cirrhosis manifests itself.

Continued on page 7.

Playing It Safe: INDOOR CARBON MONOXIDE POISONING

Every winter, there are hundreds of hospitalizations and accidental deaths caused by faulty furnaces, malfunctioning indoor fuel burning appliances, and idling cars in closed garages. When severe winter storms disrupt electric power for days or weeks, people turn to alternative heating sources to stay warm, and inadvertently put themselves at risk. Following a few simple precautions will keep your family safe and warm this winter.

- ▶ Install battery-operated carbon monoxide detectors in bedrooms and near heating sources; replace batteries twice a year.
- ▶ Have your home's heating system, water heater, and any gas, oil, or coal burning appliance serviced every year by a qualified professional.
- ▶ Have your chimney and flue inspected and cleaned annually.
- ▶ Do not use your fireplace if it is blocked with snow or ice.
- ▶ Never use gas-powered appliances (stove, oven, barbecue, clothes dryer) to heat your home.
- ▶ Never use camp stoves, charcoal grills, or hibachis indoors.
- ▶ Never use a portable generator inside your home, garage, basement, or near your home's windows, doors, or air vents.
- ▶ Never let your vehicle idle in the garage, even if the garage door is open.
- ▶ In severe weather situations, monitor children and the elderly more frequently.



Carbon Monoxide Facts

Carbon monoxide (CO) is an odorless, colorless gas that can cause sudden illness and death from breathing it. CO is produced whenever fuel (gas, oil, kerosene, wood, or charcoal) is burned. When fuel burning devices are working properly and used according to manufacturer's directions, the amount of CO produced is not hazardous. Problems arise if the device is either not working properly or being used in an non-recommended capacity (i.e., not in a well-ventilated area).

When there is a lot of CO in the air, the body becomes deprived of oxygen which damages tissue. The red blood cells in the blood more readily pick up the CO molecules than oxygen molecules. Although all people and animals can be affected by CO poisoning, some groups are more susceptible -- unborn babies, infants, and people with chronic heart disease, respiratory problems, or anemia.

Symptoms of CO poisoning

headache
dizziness
weakness
mental confusion
nausea
vomiting
chest pain
loss of consciousness

Because the symptoms of CO poisoning are similar to symptoms of the flu, food poisoning, hypoglycemia and other illnesses, diagnosis may be difficult. Also, people who are sleeping or intoxicated can die before experiencing symptoms.

If you suspect CO poisoning, get into fresh air immediately. Open windows and doors; turn off any appliances or idling vehicles; and leave the house or confined space. Call 9-1-1 or go to the emergency room. Tell the paramedics or physician that you suspect CO poisoning; blood tests can be done to confirm exposure.

The Inside Story: DROPS, SPRAYS & SUPPOSITORIES

Many prescription and over-the-counter medications are dispensed in the form of drops, sprays, or suppositories. Unlike tablets or pills which rely on a full glass of water and a good swallow, these require an element of technique and specific handling instructions. Most people probably don't give it much thought, but have you ever wondered whether you were taking your nasal allergy medication correctly or putting antibiotic drops in your child's eyes for conjunctivitis (pinkeye) properly?

Many people take one or more medications for various chronic (long-term) or acute (temporary) conditions. Understanding *what* you are taking and *why* is very important to the success of your medical regime, as is knowing *how* to take a medication properly. Well-informed health consumers get more involved in their healthcare decisions and tend to be healthier and happier. The U.S. National Library of Medicine and National Institutes of Health has adapted guidelines from the Michigan Pharmacists Association's Patient Education Program to help patients apply their medications more effectively (see boxes). Use these methods when administering medications to the eyes, nose, ears, rectum and vagina so the medication will have its desired effect and the condition or illness will resolve itself quicker.

How to Use NOSE DROPS

- ✓ Blow your nose gently.
- ✓ Wash your hands thoroughly with soap and water.
- ✓ Check the dropper tip to make sure that it is not chipped or cracked.
- ✓ Avoid touching the dropper tip against your nose or anything else—the dropper must be kept clean.
- ✓ Tilt your head as far back as possible, or lie down on your back on a flat surface (such as a bed) and hang your head over the edge.
- ✓ Place the correct number of drops into your nose.
- ✓ Bend your head forward toward your knees and gently move it left and right.
- ✓ Remain in this position for a few minutes.
- ✓ Place the dropper back in the bottle right away. Do not rinse the dropper.
- ✓ Wash your hands to remove any medication.

How to Use EAR DROPS*

- ✓ Wash your hands thoroughly with soap and warm water.
- ✓ Gently clean your ear with a damp face cloth and then dry your ear.
- ✓ Warm the drops to near body temperature by holding the container in the palm of your hand for a few minutes.
- ✓ If the drops are a suspension or if the label indicates, shake the bottle well for 10 seconds.
- ✓ Check the dropper tip to make sure that it is not chipped or cracked.
- ✓ Draw the medication into the dropper, or hold the dropper-top bottle with the dropper tip down.
- ✓ Tilt the affected ear up or lie on your side. Pull the ear backward and upward (or if giving to a child younger than 3 years of age, pull backward and downward) to open the ear canal.
- ✓ Avoid touching the dropper tip against your ear or anything else—the dropper must be kept clean.
- ✓ Place the correct number of drops in your ear. Then gently press on the small skin flap (tragus) over the ear to help the drops to run into the ear canal.
- ✓ Keep your ear tilted up for a few minutes or insert a soft cotton plug in your ear, whichever method has been recommended by your pharmacist or doctor.
- ✓ Replace and tighten the cap or dropper right away.
- ✓ Wash your hands to remove any medication.

**Having someone else give you the ear drops may make this procedure easier.*

How to Use NASAL SPRAYS

- ✓ Blow your nose gently before using the spray.
- ✓ Gently insert the bottle tip into one nostril. Press on the other side of your nose with one finger to close off the other nostril.
- ✓ Keep your head upright.
- ✓ Breathe in quickly while squeezing the bottle.
- ✓ Repeat in other nostril.
- ✓ Do not blow your nose right after using the spray.

How to Use EYE DROPS

- ✓ Wash your hands thoroughly with soap and water.
- ✓ Check the dropper tip to make sure that it is not chipped or cracked.
- ✓ Avoid touching the dropper tip against your eye or anything else—eye drops and dropper must be kept clean.
- ✓ Remove contact lenses unless the product is to be specifically used with contact lenses.
- ✓ While tilting your head back, pull down the lower lid of your eye with your index finger to form a pocket.
- ✓ Hold the dropper (tip down) with the other hand, as close to the eye as possible without touching it.
- ✓ Brace the remaining fingers of that hand against your face.
- ✓ While looking up, gently squeeze the dropper so that a single drop falls into the pocket made by the lower eyelid. Remove your index finger from the lower eyelid.
- ✓ Close your eye for 2 to 3 minutes and tip your head down as though looking at the floor. Try not to blink or squeeze your eyelids.
- ✓ Place a finger on the tear duct and apply gentle pressure.
- ✓ Wipe any excess liquid from your face with a tissue.
- ✓ If you are to use more than one drop in the same eye, wait at least 5 minutes before instilling the next drop.
- ✓ Replace and tighten the cap on the dropper bottle. Do not wipe or rinse the dropper tip.
- ✓ Wash your hands to remove any medication.

How to Use EYE OINTMENTS & GELS

- ✓ Wash your hands thoroughly with soap and water.
- ✓ Avoid touching the tip of the tube against your eye or anything else—the tube tip must be kept clean.
- ✓ Holding the tube between your thumb and forefinger, place it as near to your eyelid as possible without touching it.
- ✓ Brace the remaining fingers of that hand against your face.
- ✓ Tilt your head backward slightly.
- ✓ With your index finger, pull the lower eyelid down to form a pocket.
- ✓ Squeeze a 1/4- to 1/2-inch (0.6- to 1.25-centimeter) ribbon of ointment or gel into the pocket made by the lower eyelid. Remove your index finger from the lower eyelid.
- ✓ Blink your eye slowly; then gently close your eye for 1 to 2 minutes.
- ✓ With a tissue, wipe any excess ointment or gel from the eyelids and lashes. With another clean tissue, wipe the tip of the tube clean.
- ✓ Replace and tighten the cap right away.
- ✓ Wash your hands to remove any medication.
- ✓ Your vision may be blurry for a short amount of time after using the eye ointment. Wait until you can see normally before you drive or do other activities that require good vision.

How to Use RECTAL SUPPOSITORIES

- ✓ Wash your hands thoroughly with soap and water.
- ✓ If the suppository is soft, hold it under cool water or place it in the refrigerator for a few minutes to harden it before removing the wrapper.
- ✓ Remove the wrapper, if present.
- ✓ If you were told to use half of the suppository, cut it lengthwise with a clean, sharp blade.
- ✓ Put on a finger cot or disposable glove, if desired.
- ✓ Lubricate the suppository tip with a water-soluble lubricant such as K-Y Jelly, not petroleum jelly (Vaseline). If you do not have this lubricant, moisten your rectal area with cool tap water.
- ✓ Lie on your side with your lower leg straightened out and your upper leg bent forward toward your stomach.
- ✓ Lift upper buttock to expose the rectal area.
- ✓ Insert the suppository, pointed end first, with your finger until it passes the muscular sphincter of the rectum, about 1/2 to 1 inch (1.25 to 2.5 centimeters) in infants and 1 inch (2.5 centimeters) in adults. If not inserted past this sphincter, suppository may pop out.
- ✓ Hold buttocks together for a few seconds.
- ✓ Remain lying down for about 15 minutes to avoid having the suppository come out.
- ✓ Try to avoid having a bowel movement for about an hour so that the medication in the suppository can be absorbed into the body.
- ✓ Discard used materials and wash your hands thoroughly.

Continued on page 6.

DROPS, SPRAYS & SUPPOSITORIES continued from page 5

How to Use VAGINAL TABLETS, SUPPOSITORIES & CREAMS*

- ✓ Wash your vaginal area with a mild soap and water and dry thoroughly.
- ✓ (If the product comes as a pre-filled applicator, skip to fourth step.) For *vaginal cream products*: Attach the applicator to the opening of the tube of cream and twist until firmly attached. Squeeze the cream from the tube into the applicator until it reaches the level indicated for your dose. Twist and remove the applicator from the tube. For *tablets or suppositories*: Remove the medication from the wrapper and place it into the end of the applicator.
- ✓ Gently insert the applicator into your vagina while you position your body in either of two ways; you can stand with your feet apart and your knees bent or lie on your back with your knees bent and legs slightly apart. Insert the applicator only as far as it will comfortably go.
- ✓ Push the plunger of the applicator until it stops.
- ✓ Remove the applicator from the vagina.
- ✓ If the applicator is reusable, clean it as directed by the manufacturer. This usually involves pulling the two pieces apart and washing them with a mild soap and water. Discard the applicator if it is disposable.
- ✓ Continue to use the medication for as long as directed by your doctor or on the product labeling. Use the product without skipping any days, even during your menstrual period. You should use sanitary pads if you have your period while using this medication. Do not use tampons as they can absorb some of the medication and make your treatment less effective.

**It is best to use these products just before your bedtime. Lying down will reduce leakage of the medication from your vagina that could possibly occur while standing or walking around.*



Did You Know?

Expired medications should never be flushed down the toilet. See page 7 for disposal guidelines.

DE-MYSTIFYING YOUR PRESCRIPTION

Most people have no idea what their prescription actually says, just that when they get it from the pharmacy, it has a label with directions as to how and when to take the medication. Doctors use special terminology to indicate the timing and dosing of patients' medications.

TERM	WHAT IT MEANS
ac	before meals
ad lib	as much as desired
ap	before dinner
bid	2 times a day
h	hour
hs	at bedtime
IM	taken intramuscularly
IV	taken intravenously
npo	nothing by mouth
po	orally
prn	as needed
q	every
qh	every hour
qd	every day
qid	4 times a day
sc	taken subcutaneously
sig	"label directs patient to take..."
tid	3 times a day
wk	week

John Smith, M.D.
CA Lic. No. P91031 DEA# AD150600

NAME: Jackie Doe
ADDRESS: 255 Maple Drive, CA
DATE: January 5, 2010

Fluticasone Spray 50mcg
#120
sig 1 bid

REFILL 2 TIMES

medication: Flonase (nasal spray for allergies)

dosage: 50mcg per spray

quantity: 120 sprays

label reads: use twice daily as directed

FATTY LIVER *continued from page 2*

Most parents have probably never heard of non-alcoholic fatty liver disease, and pediatricians are likely to underestimate the prevalence or severity of the disease in children. The study recommends that overweight children age eight and older, particularly those with metabolic syndrome, pre-diabetes, or type 2 diabetes, should be screened for pediatric non-alcoholic fatty liver disease. Any child who is diagnosed with the disease should have lifestyle education and counseling.



Did You Know?

More than 6 million American children have non-alcoholic fatty liver disease.

Safe Disposal of Expired Medications

The old advice of flushing expired medications down the toilet or pouring them down the sink is no longer good advice. Doing this can result in diluted quantities ultimately reaching food and water supplies, depending upon where your waste water goes. Presently, scientists don't know the actual health impact for humans, but there is certainly a theoretical one, as seen with other environmental pollution sources.

Check to see if your community or local hospital has a medical waste recycling program or a "drug take-back" program. If none exist, the safest way to dispose of any out-dated prescription or over-the-counter medication is to remove them from the original container and mix it with used coffee grounds or kitty litter. Place the mixture in a sealed bag or empty can before adding it to your household garbage. Also, before throwing away the empty original container, remove the prescription label or ink out your identifying information; shred any paperboard box that has your information on it to guard your health privacy.



The Medicine Cabinet

Cortizone-10® OTC Topical Skin Itch Relief

Trade Name: Hydrocortisone (hye droe kor' ti sone)*

Drug Classification: topical corticosteroid; over-the-counter, low strength (1%) preparation

Purpose: used to temporarily relieve itching associated with minor skin irritations, rashes, or inflammation, caused by eczema, psoriasis, insect bites, poison ivy or oak, soaps, detergents, cosmetics, jewelry; also relieves external anal and genital itching.

Action: hydrocortisone has anti-inflammatory and anti-pruritic (anti-itch) properties.

Dispensing Method: 3 or 4 applications daily; for external anal or genital itching, affected area should be gently cleaned with mild soap and warm water first.

Major Precautions: If symptoms do not go away after 7 days or recur, consult a physician. Cortizone-10® should not be used in the genital area if vaginal or penile discharge is present. Do not insert cream directly into the rectum. Cortizone-10® should not be used in children under 2 years for skin itching or in children under age 12 for genital/anal itching without consulting a pediatrician. Avoid contact with eyes and thoroughly wash your hands after application.

Side Effects: Cortizone-10® is generally regarded as safe when used according to the manufacturer's directions. Potential side effects include a worsening of the condition, drying or cracking of the skin, itching, burning, change in skin color, or rectal bleeding. Stop taking Cortizone-10® and notify your doctor if 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.

*Topical hydrocortisone is also available in prescription-strength for the treatment of skin conditions; the inflammation of ulcerative colitis or proctitis; the swelling of hemorrhoids; and other rectal conditions.

What's the Message?

FOR YOUR **VICODIN** AWARENESS:

Long-term, inappropriate use of Vicodin® can cause deafness in some people.

Talk with children about the dangers of prescription painkillers, and seek professional help if necessary.

FOR YOUR **FATTY LIVER** AWARENESS:

Obesity is a major risk factor for non-alcoholic fatty liver disease; lose weight to decrease your risk.

Children are susceptible to non-alcoholic fatty liver disease, and the rising incidence of childhood obesity is contributing to the problem.

FOR YOUR **CARBON MONOXIDE** AWARENESS:

A working carbon monoxide detector is as valuable as a smoke detector in saving lives.

Indoor fuel burning appliances require safety precautions and regular maintenance to prevent carbon monoxide poisoning.

FOR YOUR **MEDICATION** AWARENESS:

Taking medications with the proper technique will help ensure the medications are effective in treating the intended condition.

Take all medications as directed by your physician and follow the instructions on the product label.

If you have a question or concern about your medication, ask your physician or pharmacist.

Expired medications should not be flushed down the toilet or sink.

QUOTABLE QUOTATIONS

The sovereign invigorator of the body is exercise, and of all the exercises walking is the best.

Thomas Jefferson

Dear Dr. Liker... My 10-year old son was just diagnosed with Wilson's disease. Can you shed some light?

Wilson's disease, also known as hepatolenticular degeneration, is a genetic disease which causes the liver to retain copper. Normally, the liver will release unneeded dietary copper into the digestive fluid (bile). In Wilson's disease, the copper builds up in the liver which can damage the liver tissue and cause the copper to be released directly into the bloodstream where it can enter various organs. Excessive copper can damage the liver, kidneys, brain, and eyes. The tell-tale sign of Wilson's disease is a rusty brown ring around the cornea of the eye.

About 1 in 40,000 people have Wilson's disease. Treatment includes a low-copper diet (avoid organ meats, shellfish, chocolate, nuts, and mushrooms) and medication for the rest of one's life. If Wilson's disease is detected early and treated effectively, patients will enjoy good health and a normal lifespan.

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Keeping People Focused on Staying Fit & Healthy



LIKER CONSULTING, INC.

The Center for Executive & Corporate Health

Harley R. Liker, M.D., M.B.A.

Executive Director

9675 Brighton Way, Suite 350
Beverly Hills, CA 90210

E-mail: hliker@likerconsulting.com
www.likerhealthreport.com

Publisher and Editor-in-Chief -- Harley Liker, M.D., M.B.A.
Senior Editor -- Karen Edwards, M.S.