Enlarged Liver

June 4, 2016
Health & Wellness
Rain or Shine, it is on!
Redan High School
5247 Redan Road
Stone Mountain, GA 30088
8:30am: Registration/Health Summit
9:30-1pm: Wellness Day Competition

COMMIT TO GET FIT

LIFE AND STYLE

Health & Wellness

Alpha Phi Alpha Fraternity, Inc.  Nu Mu Lambda Chapter, Decatur, GA
Enlarged Liver

A larger-than-normal liver may be a sign of a wide range of diseases. Although diseases of the liver itself often cause an enlarged liver, there are many other possible causes, including:

- Bacteria, viruses and parasites
- Certain heart conditions
- Several genetic diseases
- Some types of leukemia and lymphoma

The liver, a wedge-shaped organ on the right side of your upper abdomen, is the largest internal organ. An adult liver normally weighs between 2.6 and 3.3 pounds (1.2 to 1.5 kg) and measures an average of 5.9 inches (15 cm) in width.

It's very unusual to have an enlarged liver without other signs and symptoms that point to an underlying disease.

Symptoms

In itself, an enlarged liver typically has no symptoms. Signs and symptoms of conditions that commonly cause liver enlargement include:

- Pain in the upper right belly
- Fatigue
- Muscle aches (myalgia)
- Nausea
- Poor appetite and weight loss
- Yellowing of the skin and the whites of the eyes (jaundice)

When to see a doctor

Make an appointment with your doctor if you have any symptoms that worry you.

Causes

Among the most common causes of liver enlargement are:

- Alcoholic liver disease, which includes alcoholic fatty liver disease, alcoholic hepatitis and cirrhosis
- Nonalcoholic fatty liver disease, a lifestyle-related metabolic disease
- Viral hepatitis (hepatitis A, B, C, D or E)
- Liver cancer, or cancer that has spread to the liver from a different organ

Many less-common liver diseases may also cause liver enlargement, as do some diseases that primarily affect other organs but involve the liver indirectly. A partial list includes:

Cancers

- Some types of leukemia
- Some types of lymphoma
- Multiple myeloma

Genetic diseases

- Hemochromatosis
- Wilson’s disease
- Glycogen storage diseases
- Gaucher's disease

Heart and blood vessel problems

- Blockage of the veins that drain the liver (Budd-Chiari syndrome)
- Congestive heart failure
- Narrowing (stenosis) of the heart’s tricuspid or mitral valves

Infections

- Liver abscess, caused by parasites (amebiasis) or bacteria
- Other parasitic infections (schistosomiasis, fascioliasis)
- Relapsing fever, which humans catch from body lice or ticks

Damage from toxins

- Drug-induced liver injury from such medications as acetaminophen (Tylenol, others) and amoxicillin-clavulanate (Augmentin, Amoclans)
Damage of alcohol abuse on the liver:

- Healthy liver
- Hepatic steatosis
- Alcoholic hepatitis
- Hepatic cirrhosis

Arrows indicate the cycle of alcohol abuse and its effects on the liver.
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- Toxic hepatitis from exposure to poisons, such as the industrial chemicals carbon tetrachloride and chloroform

**Complex liver and systemic diseases**
- Amyloidosis
- Autoimmune hepatitis
- Primary biliary cirrhosis
- Primary sclerosing cholangitis

**Risk Factors**

Factors that may increase your risk of liver problems include:

- **Excessive alcohol use.** Drinking large amounts of alcohol can be damaging to your liver.
- **Large doses of medicines, vitamins or supplements.** Taking larger than recommended doses of vitamins, supplements, or over-the-counter or prescription medicines may increase your risk of liver damage.
- **Medicinal herbs.** Certain herbs, including comfrey, ma huang and mistletoe, can increase your risk of liver damage.

**Tests and Diagnosis**

An enlarged liver may go unnoticed for a long time. Frequently, liver enlargement isn't discovered until you see a doctor for more-obvious signs and symptoms of the condition responsible for your enlarged liver.

As part of the physical examination for possible liver disease, doctors use their fingertips to press on the right side of your belly just below your rib cage and feel (palpate) the lower edge of your liver, noting its size, texture, and tenderness. Depending on the underlying cause, an enlarged liver may feel soft, firm or irregular.

Well-defined lumps may be present as well.

This exam provides only a very rough estimate of liver size, though. For a precise measurement, you’ll need imaging, typically starting with an abdominal ultrasound. If there’s a need for more-detailed images, you may also have a computerized tomography (CT) scan or magnetic resonance imaging (MRI).

**Additional procedures**

Once your doctor determines that you have an enlarged liver, further tests help determine the cause. These tests include:

- **Blood tests.** A blood sample is tested to determine liver enzyme levels. This can give clues about the health of your liver. Blood tests can also identify viruses that can cause enlarged liver, such as the hepatitis viruses.
- **Magnetic resonance elastography** uses shear waves to create a visual map (elastogram) of the stiffness of liver tissue. This test is noninvasive and can be an alternative to a liver biopsy.
- **Removing a sample of liver tissue for testing (liver biopsy).** Your doctor may recommend a biopsy to collect a sample of liver tissue for laboratory testing. A liver biopsy is often done using a long, thin needle that’s inserted through your skin and into your liver. The needle draws out a core of tissue that is then sent to a laboratory for testing. Your doctor may use ultrasound to help guide the biopsy.

**Treatments and Drugs**

Treatment for an enlarged liver varies, depending on condition that’s causing it. Some of the most common causes, including alcoholic hepatitis and nonalcoholic fatty liver disease, improve...
dramatically with alcohol abstinence, a healthy diet, regular exercise and weight loss.

**Prevention**

To reduce your risk of liver disease, you can:

- **Choose a healthy diet.** Choose a diet full of fruits, vegetables and whole grains.
- **Drink alcohol in moderation, if at all.** Check with your doctor to find out what’s the right amount of alcohol for you, if any.
- **Follow directions when taking medications, vitamins or supplements.** Limit yourself to the recommended doses when taking vitamins, supplements, and over-the-counter or prescription medications.
- **Limit contact with chemicals.** Use aerosol cleaners, insecticides and other toxic chemicals only in well-ventilated areas. In addition, wear gloves, long sleeves and a mask.
- **Maintain a healthy weight.** If your weight is healthy, work to maintain it. If you need to lose weight, cut back on the number of calories you eat each day and increase the amount of daily exercise. Ask your doctor about healthy ways to lose weight.
- **Use supplements with caution.** Talk with your doctor about the risks and benefits of dietary supplements and herbal remedies before you take them. Many of these products can be harmful to your liver, particularly those containing combinations of ingredients and marketed for body-building or weight loss. Specific herbs to avoid include germander, chaparral, senna, mistletoe, comfrey, ma huang, valerian root, kava, celandine and green tea extracts.

Eye Fatigue

Eye fatigue or eye strain is a common and annoying condition. The symptoms include tired, itching, and burning eyes.

Eye fatigue is rarely a serious condition. Common sense precautions at home, work, and outdoors may help prevent or reduce eye fatigue.

But sometimes eye fatigue is a sign of an underlying condition that may need medical treatment. If eye fatigue persists despite taking simple precautions, see your doctor. This is especially important if your eye fatigue is associated with headaches or with eye problems such as:
- Discomfort
- Double vision
- Significant change in vision

Causes of Eye Fatigue

Any activity that requires intense use of the eyes -- such as extended amounts of driving or reading - can cause eye fatigue. These include extended periods of:
- Reading
- Writing
- Driving

Exposure to bright light or straining to see in dim light can also cause eye fatigue. One of the most common causes of eye fatigue is staring for long periods at digital devices such as:
- Computer screens
- Smartphones
- Video games

This type of eye fatigue or eye strain is sometimes known as computer vision syndrome. It affects about 50%-90% of computer workers. Some estimates say computer-related eye symptoms may be responsible for up to 10 million primary care eye examinations each year.

The problem is expected to grow as more people use smartphones and other hand-held digital devices. Research shows that people hold digital devices closer to their eyes than they hold books and newspapers. That forces their eyes to work harder than usual as they strain to focus on tiny font sizes.

Digital devices may also be linked to eye fatigue because of a tendency to blink less often when staring at a computer screen. People usually blink about 18 times a minute. This naturally refreshes the eyes. But studies suggest that people only blink about half as often while using a computer or other digital device. This can result in dry, tired, itching, and burning eyes.

Symptoms of Eye Fatigue

Eye fatigue is associated with uncomfortable and annoying symptoms, such as:
- Sore or irritated eyes
- Difficulty focusing
- Dry or watery eyes
- Blurred or double vision
- Increased sensitivity to light
- Pain in the neck, shoulders, or back

These symptoms can decrease your productivity. They may be intensified by sleep deprivation. During sleep, the eyes are replenished with essential nutrients. Lack of sleep may result in persistent eye irritation.

Prevention of Eye Fatigue

Usually eye fatigue can be prevented or reduced by making simple changes in your work habits or environment.

Here are some prevention tips from organizations such as Prevent Blindness, the National Eye Institute, and Get Eye Smart:

**Make changes to your computer screen, such as:**
- Place the screen 20-26 inches away from your eyes and a little below eye level.
- Regularly clean off dust and fingerprints from the screen. Smudges on the screen can reduce contrast and increase problems with glare and reflections.
- Choose screens that tilt and swivel.
- Consider using a glare filter over your screen.

**Make changes to your work environment, such as:**
- Change lighting to reduce glare and harsh reflections.
- Use an adjustable chair.
- Place a document holder next to your computer screen.

**Make changes to your work habits, such as:**
- Try the 20-20-20 rule. Every 20 minutes, look away about 20 feet in front of you for 20 seconds.
- Post a note that says "Blink" on the computer as a reminder.
- Take regular breaks from computer work.
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Take care of your eyes with these steps:

- Apply a washcloth soaked in warm water to tired, dry eyes (with eyes closed).
- Use artificial tears to refresh your eyes when they feel dry.
- To help prevent dry eyes while working indoors, use an air cleaner to filter dust and a humidifier to add moisture to the air.

If you have eye fatigue or pain, you should see an eye doctor for an evaluation in case there is an underlying medical condition.

If eye fatigue persists despite these simple interventions, make an appointment with an eye doctor for a comprehensive eye exam to ensure that your glasses or contact lens prescription is up to date and adequate for computer use. Your eye fatigue may be related to an underlying condition such as an eye muscle imbalance. Or it may be due to a need for glasses or a change in your present eyeglass prescription. Occupational glasses may be needed for some people with the syndrome. A single or bifocal lens, or tinted lens material, may help increase contrast perception and filter out glare and reflective light to reduce symptoms of eye strain.

Behavioral Disorder

Behavioral disorders, also known as disruptive behavioral disorders, are the most common reasons that parents are told to take their kids for mental health assessments and treatment. Behavioral disorders are also common in adults. If left untreated in childhood, these disorders can negatively affect a person’s ability to hold a job and maintain relationships.

What Are the Types of Behavioral Disorders?

According to BehaviorDisorder.org, behavioral disorders may be broken down into a few types, which include:

- Anxiety disorders
- Disruptive behavioral disorders
- Dissociative disorders
- Emotional disorders
- Pervasive developmental disorders

Attention Deficit Hyperactivity Disorder (ADHD)

According to Centers for Disease Control and Prevention, ADHD is a condition that impairs an individual’s ability to properly focus and to control impulsive behaviors, or it may make the person overactive.

ADHD is more common in boys than it is in girls. According to the Wexner Medical Center at Ohio State University, males are two to three times more likely than females to get ADHD.

Emotional Behavioral Disorder

An emotional behavioral disorder affects a person’s ability to be happy, control their emotions and pay attention in school. According to Gallaudet University, symptoms of an emotional behavioral disorder include:

- Inappropriate actions or emotions under normal circumstances
- Learning difficulties that are not caused by another health factor
- Difficulty with interpersonal relationships, including relationships with teachers and peers
- A general feeling of unhappiness or depression
- Feelings of fear and anxiety related to personal or school matters

Oppositional Defiant Disorder (ODD)

ODD is a behavioral disorder characterized by hostile, irritable and uncooperative attitudes in children, according to Children’s Mental Health Ontario. Children with ODD may be spiteful or annoying on purpose, and they generally direct their negative actions at authority figures.

Anxiety

Anxiety is a normal emotion, and all people feel anxiety at some point in their lives. However, for some people, anxiety may get to a point where it interferes with their daily lives, causing insomnia and negatively affecting performance at work or school, according to the Mayo Clinic. Anxiety disorders involve more than regular anxiety. They are serious mental health conditions that require treatment. Examples of these types of mental conditions include:

- Post-traumatic stress disorder
- Obsessive-compulsive disorder
- Generalized anxiety disorder
- Panic disorder

Obsessive-Compulsive Disorder (OCD)

OCD is characterized by fears and irrational thoughts that lead to obsessions, which, in turn, cause compulsions, according to the
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Mayo Clinic. If you have OCD, you engage in compulsive, repetitive behavior despite realizing the negative consequences of — or even the unreasonable nature of — your actions. Performing these repetitive acts does nothing more than relieve stress temporarily.

What Causes a Behavioral Disorder?

A behavioral disorder can have a variety of causes. According to the University of North Carolina at Chapel Hill, the abnormal behavior that is usually associated with these disorders can be traced back to biological, family and school-related factors.

Some biological causes may include:
- Physical illness or disability
- Malnutrition
- Brain damage
- Hereditary factors

Other factors related to an individual’s home life may contribute to behaviors associated with a behavioral disorder:
- Divorce or other emotional upset at home
- Coercion from parents
- Unhealthy or inconsistent discipline style
- Poor attitude toward education or schooling

What Are the Signs of a Behavioral Disorder?

Someone who has a behavioral disorder may act out or display emotional upset in different ways, which will also vary from person to person.

Emotional Symptoms of Behavioral Disorders
According to Boston Children’s Hospital, some of the emotional symptoms of behavioral disorders include:
- Easily getting annoyed or nervous
- Often appearing angry
- Putting blame on others
- Refusing to follow rules or questioning authority
- Arguing and throwing temper tantrums
- Having difficulty in handling frustration

Physical Symptoms of Behavioral Disorders
Unlike other types of health issues, a behavioral disorder will have mostly emotional symptoms, with physical symptoms such as a fever, rash, or headache being absent. However, sometimes people suffering from a behavioral disorder will develop a substance abuse problem, which could show physical symptoms such as burnt fingertips, shaking or bloodshot eyes.

Short-Term and Long-Term Effects of a Behavioral Disorder
If left untreated, a behavioral disorder may have negative short-term and long-term effects on an individual’s personal and professional life. People may get into trouble for acting out, such as face suspension or expulsion for fighting, bullying or arguing with authority figures. Adults may eventually lose their jobs. Marriages can fall apart due to prolonged strained relationships, while children may have to switch schools and then eventually run out of options.

According to HealthyChildren.org, the most serious actions a person with a behavioral disorder may engage in include starting fights, abusing animals and threatening to use a weapon on others.

The earlier a behavioral disorder is diagnosed and properly treated, the more likely it is that a child or adult suffering from it will be able to control their behavior.
Global YLDs for Mental and Behavioral Disorders as a Percent of Total Global YLDs (2010)

1. Major Depressive Disorder: 8.13%
2. Anxiety Disorders: 3.45%
3. Drug Use Disorders: 2.11%
4. Schizophrenia: 1.85%
5. Alcohol Use Disorders: 1.78%
6. Bipolar Disorder: 1.66%
7. Dysthymia: 1.43%
8. Autism and Asperger’s Syndrome: 0.99%
9. ADHD and Conduct Disorder: 0.80%
10. Eating Disorders: 0.25%
11. Other Mental and Behavioral Disorders: 0.14%
12. Idiopathic Intellectual Disability: 0.13%

Data courtesy of WHO
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Is There a Test or Self-Assessment I Can Do?

Mental health professionals and treatment centers can evaluate people to determine if they have a behavioral disorder. Tests called functional behavioral assessments offer problem-solving help to address behavioral problems in students. According to Center for Effective Collaboration and Practice, these assessments are based on many techniques and strategies for identifying problem behaviors. Individualized educational program teams use these assessments to choose interventions that address specific behavioral problems. These teams are involved in the education of students, and they may include parents and teachers.

Medication: Behavior-Modifying Drug Options

A person may receive prescription medications to help manage a behavioral disorder. Though medication will not cure the disorder, it is effective in assisting with treatment to control and modify behaviors.

Behavioral Drugs: Possible Options

Many drugs are available for behavioral problems, and the type of drug that will be prescribed depends on the specific condition being treated. The Positive Environments Network of Trainers of the California Department of Education lists Ritalin and Dexedrine as short-acting medications for the treatment of ADHD. They may help a child focus better, reduce impulsive behavior and reduce motor restlessness.

Ritalin is also included in a group of medications known as long-acting stimulants. Other types of medications in this group include Concerta, Methylphenidate ER, Methylphenidate CD, Focalin, and Metadate ER. These medications may also be effective against ADHD. Concerta may prevent drug abuse, as can Vyvanse and Daytrana. Some professionals recommend Wellbutrin as a primary ADHD treatment.

People with an anxiety disorder, OCD or ADHD may benefit from antidepressants, including Paxil, Tofranil, Anafranil, Prozac, Luvox, Celexa, Zoloft and Norpramin. Other medications that may help include Daytrana, Biphetamine, Dexedrine, Adderall XR and Strattera. These medications are aimed at decreasing impulsivity, reducing hyperactivity, decreasing obsessive-compulsive actions and reducing feelings of depression.

Medication Side Effects

Medications for behavioral disorders may have side effects. They can increase emotional issues, increase suicidal thoughts and aggravate seizure conditions. Some of the possible side effects include:

- Insomnia
- Appetite reduction
- Tremors
- Depression
- Abnormal heart rhythms

Behavior Drug Addiction, Dependence and Withdrawal

An individual may become addicted to the medication taken to treat a behavioral disorder. As a result, the person may need professional help with weaning off that medication. You may experience withdrawal symptoms if you abuse certain medications.

Medication Overdose

Children are more likely than adults to accidentally overdose on medication, including behavioral medications. A person who is depressed because of a behavioral disorder may attempt an overdose on purpose. People who are depressed or have suicidal thoughts have a high risk for overdose, according to the National Coalition Against Prescription Drug Abuse.

Depression and Behavioral Disorders

According to the Cleveland Clinic, a behavioral disorder may trigger depression. The opposite is also possible, with depression being a trigger for a behavioral disorder, which can also lead to substance abuse.

Dual Diagnosis: Addiction and Behavioral Disorders

It is not uncommon for people with a behavioral disorder to also have an addiction to drugs or alcohol. According to Psychology Today, an individual who has a panic disorder may also be addicted to alcohol.

Children with ADHD may be at a higher risk for developing a substance abuse or alcohol dependence issue if the condition carries over into adulthood, according to WebMD.

Getting Help for a Behavioral Disorder

Because of the severity of these mental health issues, getting help for a behavioral disorder is crucial. Cognitive behavioral therapy along with medication is an effective way to treat disorders such as ODD. The sooner you get help, the easier it will be to restore your life to normal.

Sources: webmd.com (2016); psychguides.com (2016); CDC.gov (2016); Wexner Medical Center at Ohio State University (2016); Gallaudet University (2016); Children’s Mental Health Ontario (2016); Mayo Clinic (2016); University of North Carolina at Chapel Hill (2016); Boston Children’s Hospital (2016); HealthyChildren.org (2016); Positive Environments Network of Trainers of the California Department of Education (2016); National Coalition Against Prescription Drug Abuse (2016); Cleveland Clinic (2016); Psychology Today (2016)
Principal Pete Visits Dr. Brainerd

Let's explore this traumatic experience you mentioned. Is it about your mother? How old were you?

Forty-two. And the traumatic event is scheduled for next week. I have to chaperone the all-night graduation party.
Causes and Symptoms of Peripheral Neuropathy

Every nerve in your peripheral system has a specific function, so symptoms depend on the type of nerves affected. Nerves are classified into:

- Sensory nerves that receive sensation, such as temperature, pain, vibration or touch, from the skin
- Motor nerves that control muscle movement
- Autonomic nerves that control functions such as blood pressure, heart rate, digestion and bladder

Signs and symptoms of peripheral neuropathy might include:

- Gradual onset of numbness, pricking or tingling in your feet or hands, which can spread upward into your legs and arms
- Sharp, jabbing, throbbing, freezing or burning pain
- Extreme sensitivity to touch
- Lack of coordination and falling
- Muscle weakness or paralysis if motor nerves are affected

If autonomic nerves are affected, signs and symptoms might include:

- Heat intolerance and altered sweating
- Bowel, bladder or digestive problems
- Changes in blood pressure, causing dizziness or lightheadedness

Peripheral neuropathy can affect one nerve (mononeuropathy), two or more nerves in different areas (multiple mononeuropathy) or many nerves (polyneuropathy). Carpal tunnel syndrome is an example of mononeuropathy. Most people with peripheral neuropathy have polyneuropathy.

When to see a doctor

Seek medical care right away if you notice unusual tingling, weakness or pain in your hands or feet. Early diagnosis and treatment offer the best chance for controlling your symptoms and preventing further damage to your peripheral nerves.

Causes

Not a single disease, peripheral neuropathy is nerve damage caused by a number of conditions. Causes of neuropathies include:

- **Alcoholism.** Poor dietary choices made by people with alcoholism can lead to vitamin deficiencies.
- **Autoimmune diseases.** These include Sjögren’s syndrome, lupus, rheumatoid arthritis, Guillain-Barre syndrome, chronic inflammatory demyelinating polyneuropathy and necrotizing vasculitis.
- **Diabetes.** More than half the people with diabetes develop some type of neuropathy.
- **Exposure to poisons.** Toxic substances include heavy metals or chemicals.
- **Medications.** Certain medications, especially those used to treat cancer (chemotherapy), can cause peripheral neuropathy.
- **Infections.** These include certain viral or bacterial infections, including Lyme disease, shingles, Epstein-Barr virus, hepatitis C, leprosy, diphtheria and HIV.
- **Inherited disorders.** Disorders such as Charcot-Marie-Tooth disease are hereditary types of neuropathy.
- **Trauma or pressure on the nerve.** Traumas, such as from motor vehicle accidents, falls or sports injuries, can sever or damage peripheral nerves. Nerve pressure can result from having a cast or using crutches or repeating a motion such as typing many times.
- **Tumors.** Growths, cancerous (malignant) and noncancerous (benign), can develop on the nerves or press nerves. Also, polyneuropathy can arise as a result of some cancers related to the body’s immune response. These are a form of paraneoplastic syndrome.
- **Vitamin deficiencies.** B vitamins — including B-1, B-6 and B-12 — vitamin E and niacin are crucial to nerve health.
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- **Bone marrow disorders.** These include abnormal protein in the blood (monoclonal gammopathies), a form of bone cancer (osteosclerotic myeloma), lymphoma and amyloidosis.
- **Other diseases.** These include kidney disease, liver disease, connective tissue disorders and an underactive thyroid (hypothyroidism).

In a number of cases, no cause can be identified (idiopathic).

**Risk factors**

Peripheral neuropathy risk factors include:
- Diabetes mellitus, especially if your sugar levels are poorly controlled
- Alcohol abuse
- Vitamin deficiencies, particularly B vitamins
- Infections, such as Lyme disease, shingles, Epstein-Barr virus, hepatitis C and HIV
- Autoimmune diseases, such as rheumatoid arthritis and lupus, in which your immune system attacks your own tissues
- Kidney, liver or thyroid disorders
- Exposure to toxins
- Repetitive motion, such as those performed for certain jobs
- Family history of neuropathy

**Complications**

Complications of peripheral neuropathy can include:
- **Burns and skin trauma.** You might not feel temperature changes or pain on parts of your body that are numb.
- **Infection.** Your feet and other areas lacking sensation can become injured without your knowing. Check these areas regularly and treat minor injuries before they become infected, especially if you have diabetes mellitus.
- **Falls.** Weakness and loss of sensation may be associated with lack of balance and falling.

*Source: The Mayo Clinic (2016)*
Tennis Elbow (Lateral Epicondylitis)

Tennis elbow, or lateral epicondylitis, is a painful condition of the elbow caused by overuse. Not surprisingly, playing tennis or other racquet sports can cause this condition. However, several other sports and activities can also put you at risk.

Tennis elbow is an inflammation of the tendons that join the forearm muscles on the outside of the elbow. The forearm muscles and tendons become damaged from overuse — repeating the same motions again and again. This leads to pain and tenderness on the outside of the elbow.

There are many treatment options for tennis elbow. In most cases, treatment involves a team approach. Primary doctors, physical therapists, and, in some cases, surgeons work together to provide the most effective care.

Anatomy

Your elbow joint is a joint made up of three bones: your upper arm bone (humerus) and the two bones in your forearm (radius and ulna). There are bony bumps at the bottom of the humerus called epicondyles. The bony bump on the outside (lateral side) of the elbow is called the lateral epicondyle.

Muscles, ligaments, and tendons hold the elbow joint together.

Lateral epicondylitis, or tennis elbow, involves the muscles and tendons of your forearm. Your forearm muscles extend your wrist and fingers. Your forearm tendons — often called extensors — attach the muscles to bone. They attach on the lateral epicondyle. The tendon usually involved in tennis elbow is called the Extensor Carpi Radialis Brevis (ECRB).

Cause

Overuse

Recent studies show that tennis elbow is often due to damage to a specific forearm muscle. The extensor carpi radialis brevis (ECRB) muscle helps stabilize the wrist when the elbow is straight. This occurs during a tennis groundstroke, for example. When the ECRB is weakened from overuse, microscopic tears form in the tendon where it attaches to the lateral epicondyle. This leads to inflammation and pain.

The ECRB may also be at increased risk for damage because of its position. As the elbow bends and straightens, the muscle rubs against bony bumps. This can cause gradual wear and tear of the muscle over time.

Activities

Athletes are not the only people who get tennis elbow. Many people with tennis elbow participate in work or recreational activities that require repetitive and vigorous use of the forearm muscle.

Painters, plumbers, and carpenters are particularly prone to developing tennis elbow. Studies have shown that auto workers, cooks, and even butchers get tennis elbow more often than the rest of the population. It is thought that the repetition and weight lifting required in these occupations leads to injury.

Age

Most people who get tennis elbow are between the ages of 30 and 50, although anyone can get tennis elbow if they have the risk factors. In racquet sports like tennis, improper stroke technique and improper equipment may be risk factors.

Unknown

Lateral epicondylitis can occur without any recognized repetitive injury. This occurrence is called "insidious" or of an unknown cause.
Symptoms

The symptoms of tennis elbow develop gradually. In most cases, the pain begins as mild and slowly worsens over weeks and months. There is usually no specific injury associated with the start of symptoms.

Common signs and symptoms of tennis elbow include:
- Pain or burning on the outer part of your elbow
- Weak grip strength

The symptoms are often worsened with forearm activity, such as holding a racquet, turning a wrench, or shaking hands. Your dominant arm is most often affected; however both arms can be affected.

Doctor Examination

Your doctor will consider many factors in making a diagnosis. These include how your symptoms developed, any occupational risk factors, and recreational sports participation.

Your doctor will talk to you about what activities cause symptoms and where on your arm the symptoms occur. Be sure to tell your doctor if you have ever injured your elbow. If you have a history of rheumatoid arthritis or nerve disease, tell your doctor.

During the examination, your doctor will use a variety of tests to pinpoint the diagnosis. For example, your doctor may ask you to try to straighten your wrist and fingers against resistance with your arm fully straight to see if this causes pain. If the tests are positive, it tells your doctor that those muscles may not be healthy.

Tests

Your doctor may recommend additional tests to rule out other causes of your problem.

- **X-rays.** These tests provide clear images of dense structures like bone. They may be taken to rule out arthritis of the elbow.

- **Magnetic resonance imaging (MRI) scan.** If your doctor thinks your symptoms are related to a neck problem, an MRI scan may be ordered. MRIs scans show details of soft tissues, and will help your doctor see if you have a possible herniated disk or arthritis in your neck. Both of these conditions often produce arm pain.

- **Electromyography (EMG).** Your doctor may order an EMG to rule out nerve compression. Many nerves travel around the elbow, and the symptoms of nerve compression are similar to those of tennis elbow.

Treatment

Nonsurgical Treatment

Approximately 80% to 95% of patients have success with nonsurgical treatment.

- **Rest.** The first step toward recovery is to give your arm proper rest. This means that you will have to stop participation in sports or heavy work activities for several weeks.

- **Non-steroidal anti-inflammatory medicines.** Drugs like aspirin or ibuprofen reduce pain and swelling.

- **Equipment check.** If you participate in a racquet sport, your doctor may encourage you to have your equipment checked for proper fit. Stiffer racquets and looser-strung racquets often can reduce the stress on the forearm, which means that the forearm muscles do not have to work as hard. If you use an oversized racquet, changing to a smaller head may help prevent symptoms from recurring.

- **Physical therapy.** Specific exercises are helpful for strengthening the muscles of the forearm. Your therapist may also perform ultrasound, ice massage, or muscle-stimulating techniques to improve muscle healing.
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- **Brace.** Using a brace centered over the back of your forearm may also help relieve symptoms of tennis elbow. This can reduce symptoms by resting the muscles and tendons.
- **Steroid injections.** Steroids, such as cortisone, are very effective anti-inflammatory medicines. Your doctor may decide to inject your damaged muscle with a steroid to relieve your symptoms.
- **Extracorporeal shock wave therapy.** Shock wave therapy sends sound waves to the elbow. These sound waves create "microtrauma" that promote the body's natural healing processes. Shock wave therapy is considered experimental by many doctors, but some sources show it can be effective.

**Surgical Treatment**

If your symptoms do not respond after 6 to 12 months of nonsurgical treatments, your doctor may recommend surgery.

Most surgical procedures for tennis elbow involve removing diseased muscle and reattaching healthy muscle back to bone.

The right surgical approach for you will depend on a range of factors. These include the scope of your injury, your general health, and your personal needs. Talk with your doctor about the options. Discuss the results your doctor has had, and any risks associated with each procedure.

- **Open surgery.** The most common approach to tennis elbow repair is open surgery. This involves making an incision over the elbow.
- **Arthroscopic surgery.** Tennis elbow can also be repaired using miniature instruments and small incisions. Like open surgery, this is a same-day or outpatient procedure.

**Surgical risks.** As with any surgery, there are risks with tennis elbow surgery. The most common things to consider include:

- Infection
- Nerve and blood vessel damage
- Possible prolonged rehabilitation
- Loss of strength
- Loss of flexibility
- The need for further surgery

**Rehabilitation.** Following surgery, your arm may be immobilized temporarily with a splint. About 1 week later, the sutures and splint are removed.

After the splint is removed, exercises are started to stretch the elbow and restore flexibility. Light, gradual strengthening exercises are started about 2 months after surgery.

Your doctor will tell you when you can return to athletic activity. This is usually 4 to 6 months after surgery. Tennis elbow surgery is considered successful in 80% to 90% of patients. However, it is not uncommon to see a loss of strength.

**New Developments**

Platelet-rich plasma (PRP) is currently being investigated for its effectiveness in speeding the healing of a variety of tendon injuries. PRP is a preparation developed from a patient's own blood. It contains a high concentration of proteins called growth factors that are very important in the healing of injuries.

Current research on PRP and lateral epicondylitis is very promising. A few treatment centers across the country are incorporating PRP injections into the nonsurgical treatment regimen for lateral epicondylitis. However, this method is still under investigation and more research is necessary to fully prove PRP's effectiveness.

*Sources: American Academy of Orthopaedic Surgeons (2016)*
Medial Epicondylitis (Golfer's Elbow)

Medial epicondylitis (commonly called golfer's elbow or thrower's elbow) is a condition that occurs when the tendons on the inside of the forearm become irritated, inflamed, and painful due to repetitive use of the hand, wrist, and forearm. The group of muscles affected by medial epicondylitis are those that function to flex (bend) the wrist, fingers, and thumb and pronate (rotate palm-down) the wrist and forearm. The muscle group comes together into a common sheath and attaches to the humerus bone of the upper arm. This bony prominence, called the medial epicondyle, is located along the inside of the elbow.

Pain occurs on or near the medial epicondyle, at the area where the tendon connects to the bone. Repetitive forces can cause the tendon to become tender and irritated, and without treatment, can cause it to even tear away from the bone. In addition, as the muscle groups travel across both the elbow and the wrist, they function to stabilize at the elbow allowing for wrist movement. As this is a 2-joint tendon, it is more vulnerable to injury.

How Does it Feel?

Persons with medial epicondylitis may experience:

- **Pain along the inside of the forearm with wrist, hand, or elbow movements.**
- **Pain or numbness and tingling that radiates from the inside of the elbow down into the hand and fingers, with gripping or squeezing movements.**
- **Tenderness to touch and swelling along the inside of the forearm.**
- **Weakness in the hand and forearm when attempting to grip objects.**
- **Elbow stiffness.**

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How Can a Physical Therapist Help?

It is important to get proper treatment for medial epicondylitis as soon as it occurs, as tendons do not have a good blood supply. An inflamed tendon that is not treated can begin to tear, causing a more serious condition.

When a diagnosis of medial epicondylitis is made, you will work with your physical therapist to devise a treatment plan that is specific to your condition and goals. Your individual treatment program may include:

Pain Management. Your physical therapist will help you identify and avoid painful movements to allow the inflamed tendon to heal. Ice, ice massage, or moist heat may be used for pain management. Therapeutic modalities, such as iontophoresis (medication delivered through an electrically charged patch), and ultrasound may be applied. Bracing or splinting may also be prescribed. In severe cases, it may be necessary to rest the elbow and not perform work or sport activities that continue causing pain, which may slow the recovery process.

Manual Therapy. Your physical therapist may use manual techniques, such as gentle joint movements, soft-tissue massage, and elbow, forearm, and wrist stretches to help the muscles regain full movement. Your therapist may also do manual stretching and manual techniques to your shoulder and thoracic spine, as your tendons along the medial elbow can be affected by muscle imbalances all the way up the chain.

Range-of-Motion Exercises. You will learn mobility exercises and self-stretches to help your elbow and wrist maintain proper movement.

Strengthening Exercises. Your physical therapist will determine which strengthening exercises are right for you, depending on your specific condition, as your pain subsides. You may use weights, medicine balls, resistance bands, and other types of resistance training to challenge your weaker muscles. You will receive a home-exercise program to maintain your arm, forearm, elbow, and hand strength long after you have completed your formal physical therapy.

Patient Education. Education is an important part of rehabilitation. Your physical therapist may suggest adjustments to how you perform various tasks, and make suggestions to improve your form and reduce any chance of injury. Adjustments made in your golf swing, throwing techniques, or work tasks can help reduce pressure placed on the tendons in the forearm region.

Functional Training. As your symptoms improve, your physical therapist will help you return to your previous level of function. Functional training will include modifications in specific movement patterns, promoting less stress on the medial tendons. As mentioned previously in patient education, you and your physical therapist will decide what your goals are, and safely get you back to your prior performance levels as soon as possible.

Upper Body Flexibility Exercises

Stretch #1 Shoulder & Chest

This can be performed kneeling or standing. Clasp hands behind back and straighten arms. Raise hands as high as possible and bend forward from the waist and hold.

Stretch #2 Arm Across Chest

Place one arm straight across chest. Place hand on elbow and pull arm towards chest and hold. Repeat with other arm.

Stretch #3 Triceps Stretch

Place one hand behind back with elbow in air. Place other hand on elbow and gently pull towards head. Hold and repeat with other arm.

Here are some general guidelines to bear in mind when following a flexibility program...

- You should be thoroughly warmed up before performing these exercises
- Stretch to just before the point of discomfort
- The feeling of tightness should diminish as you hold the stretch
- Breath out into the stretch. Avoid breath holding
- Hold each stretch for 10-30 seconds
- If tightness intensifies or you feel pain stop the stretch
- Shake out limbs between stretches
- Complete 2-3 stretches before moving onto the next exercise
Summer '16 Song Makers to Lookout For

**NeoSoul**
- Lalah Hathaway
- Dwell
- Kindred The Family Soul
- Zo!
- The Foreign Exchange

**R&B**
- Tank
- Eric Roberson
- Tweet

**Gospel**
- Darius Paulk
- Marica Chisolm
- Zebulon Ellis
- Tasha Cobbs

**Pop**
- Janelle Monae
- Jhené Aiko
- Bruno Mars
- Tori Kelly

**Hip-Hop**
- Common
- Drake
- Nicki Minaj
- Tinashe

Nothing says its summer like hosting a pool or dinner party, enjoying the company of close family & great friends, while filling the air with good music. The artists here will help you set the tone regardless of your party size.

If you’re like me and love to sing at the top of your lungs in the shower and on road trips, check on these folks, categorized by genre, and have fun! If you merely pretend to be a singer, you’ll find the content and lyrics to be much less offensive than most in heavy rotation.

Growing up playing several instruments, I love live performances just as much as studio hits. If you get wind of this group of entertainers coming to a stage near
Apricot Canapes

INGREDIENTS
✓ 16 dried apricots
✓ 8 teaspoons crumbled blue cheese
✓ 2 ounces chopped shelled pistachios
✓ 1/2 teaspoon honey
✓ Freshly ground pepper

PREPARATION
1. Top each apricot with 1/2 teaspoon cheese.
2. Sprinkle with pistachios and drizzle with honey.
3. Sprinkle with pepper.

NUTRITION
1. 64 calories
2. 4 g fat (1 g sat, 2 g mono)
3. 1 mg cholesterol
4. 7 g carbohydrates
5. 2 g protein
6. 1 g fiber
7. 20 mg sodium
8. 170 mg potassium

Carbohydrate Servings: ½
Exchanges: ½ fruit, ½ fat

Courtesy: eatingwell.com (2016)
June 4, 2016

Redan High School
5247 Redan Road
Stone Mountain, GA 30088
8-9:30am: Registration/Health Summit
9:30-1pm: Wellness Day Competition

Four teams divided amongst Brothers and Mentees will compete in several events to take home the coveted Bro. Ralph “C.T.” Franklin Cup!

Brothers, this day is a celebration of the hard work the chapter has done in the community; the commitment we have with our mentees; and the full effort to live a healthier lifestyle for our families.

Rain or Shine, it is on!

AGGRESSORS  INVADERS  TITANS  SMACKDOWN