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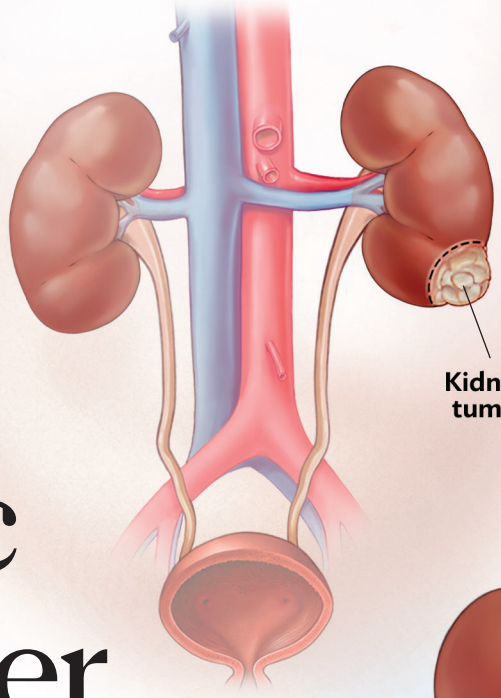
Mayo Clinic Health Letter

Reliable Information for a Healthier Life



Kidney cancer

Stage set for better outcomes

Weight loss may have always been a goal for you. But not like this: 25 pounds lost in a few months without really trying. Worse, there's low back pain that won't stop.

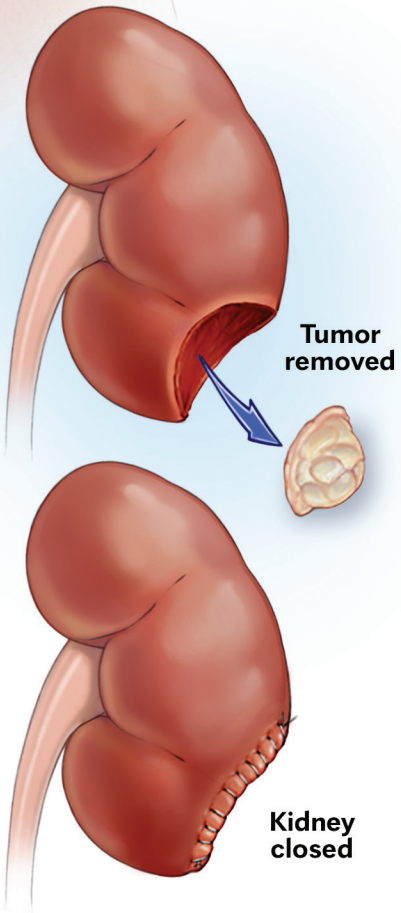
Symptoms like these can have a variety of causes. Kidney cancer is among them. It's one of the 10 most common cancers in the U.S., and the average age of diagnosis is 65. Sometimes, symptoms such as those described above provide a clue. However, this type of cancer may come without warning, causing few or no symptoms. In many cases, it's found when medical professionals do imaging tests for a different concern.

Renal cell carcinoma accounts for about 90% of kidney cancers. In most cases, the disease is caught in its early stages and often can be cured. Some small cancers can be monitored without treatment. For cancer that has spread, recent developments in treatment have improved outcomes.

Body filters, disrupted

The kidneys are two bean-shaped organs, each about the size of a fist. They're located behind other abdominal organs, with one kidney on each side of the body. Your kidneys are major blood filters and waste removers. They also balance fluids and minerals and release hormones.

Renal cell carcinoma is most often a single tumor that develops in one kidney. Less commonly, there may be more tumors, or tumors may develop in both kidneys. In its early stages, kidney cancer rarely causes symptoms. In part because of this, about 25% to 30% of those diagnosed with kidney cancer have cancer that has spread (metastasized) beyond the kidneys at the time of diagnosis.



Partial kidney removal involves removing the cancer and a small area of healthy tissue that surrounds it. This is a common treatment for small kidney cancers and is generally preferred over complete kidney removal to preserve kidney function.

INSIDE: Is acetaminophen safe? | Tennis elbow and golfer's elbow | Smart wearable devices | Over-the-counter hearing aids

There are a number of risk factors for kidney cancer, such as smoking, obesity, high blood pressure, advanced kidney disease and exposure to workplace chemicals such as cadmium. Still, screening tests aren't recommended for the general population. They may be used if you get dialysis or have one of several rare inherited conditions that puts you at higher risk of kidney cancer.

Symptoms do lead to a diagnosis at times. These include persistent back pain below the ribs, unintended weight loss, blood in the urine, fatigue and intermittent fever.

After diagnosis, the next step is to determine the cancer's extent, called the stage. This is done using further tests such as additional imaging. The stages of kidney cancer range from 1 to 4. A stage 1 kidney cancer is small and confined to the kidney. As the cancer gets larger, the stages get higher. A stage 4 kidney cancer has grown beyond the kidney or spread to other parts of the body — most commonly the lungs, brain, liver or lymph nodes.

Early-stage cancer

For cancer that has not spread beyond the kidney, there are many options. They range from actively monitoring the tumor to assess its rate of growth — without active treatment — to undergoing surgery. Cancer caught and treated at this stage leads to successful outcomes, with a five-year survival rate of 90% or higher.

Removing the entire affected kidney (radical nephrectomy)

This involves removing the entire kidney and a border of healthy fatty tissue around it. Nearby structures such as lymph nodes and the adrenal gland also may be removed. The surgeon may perform the procedure through a single, large incision. This is called an open nephrectomy. Or the surgeon may use a series of small incisions in the abdomen to perform laparoscopic or robot-assisted laparoscopic nephrectomy. Kidney removal is considered the go-to procedure for kidney cancer.

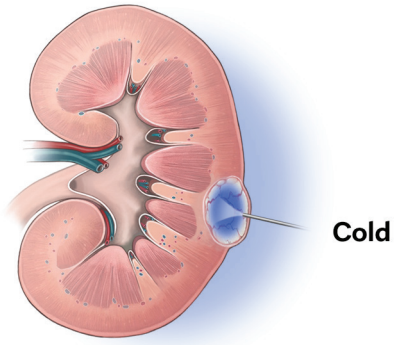
One potential downside to removing an entire kidney is the loss of that kidney's function. Fortunately, two healthy kidneys contain more filtering and waste-removal capacity than you need, so the body usually functions perfectly well with a single healthy kidney. However, kidney function is watched since it typically diminishes with age. Added factors that can harm kidneys over time include chronic kidney disease, high blood pressure, smoking and diabetes. If your kidneys already have diminished function, removing one may make it difficult or impossible for the remaining kidney to keep up with your body's demands. For cancer that's best treated with full kidney removal, this may be a necessary trade-off that can be managed with additional steps such as risk factor control — to try to prevent further loss of kidney function — or even dialysis.

Partial kidney removal (kidney-sparing surgery)

This involves removing the cancer and a small area (margin) of healthy kidney tissue surrounding it rather than the entire kidney. It can be done as an open procedure, laparoscopically or with robotic assistance. Kidney-sparing surgery is a common treatment for small kidney cancers. It may be an option if you have only one kidney. When possible, kidney-sparing surgery is generally preferred over a radical nephrectomy to preserve kidney function. It also may reduce the risk of later complications.

Destroying (ablating) the tumor with cold or heat

Use of a thin, image-guided probe to deliver extreme cold (cryoablation) or heat (radiofrequency ablation) to destroy a tumor offers an effective treatment option — especially for smaller tumors in the early stages — that's less invasive than surgery. Ablation can often be done as an outpatient procedure using either local or general anesthesia. Side effects are relatively rare but can include bleeding.



Your healthcare team may use a thin, image-guided probe to deliver extreme cold (cryoablation) or heat to destroy a kidney tumor. For small tumors, this option is effective and less invasive than surgery.

Mayo Clinic Health Letter

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Options for cancer that's spread

Surgery for advanced kidney cancer is less likely to yield a cure. However, it usually helps people live longer — and it can help improve symptoms such as pain and bleeding. About 75% of people with cancer that's spread to nearby structures or lymph nodes live another five years after treatment. In those whose cancer has spread farther, such as to the bones, brain or lungs, only 18% are still alive five years after treatment. Mayo Clinic experts say that treatments and outcomes are quickly improving.

Kidney cancer drugs work in two main ways:

- By boosting the immune system to fight off or destroy cancer cells. This is called biological therapy or immunotherapy.
- By blocking specific signals in cancer cells that allow them to grow and spread. This is called targeted therapy.

Recently, there have been significant increases in drug options for treating kidney cancer. Drug combinations or single-drug treatments are typically used in a sequential manner to see how your body — and the cancer — responds. The most common reason to switch to another therapy is that the cancer continues to grow despite the current treatment. Another reason to switch is side effects.

Pembrolizumab (Keytruda) and nivolumab (Opdivo) are from a class of drugs that provide immunotherapy. They improve the immune system's ability to fight cancer cells. Pembrolizumab can sometimes be used after surgery to prevent cancer from returning. Both drugs are used to treat kidney cancer that has spread.

After initial treatment, it's important to see your healthcare team for follow-up visits to check for recurrence. For those on drug therapy, frequent checkups and drug adjustments are part of the treatment process. ■

NEWS AND OUR VIEWS

IS ACETAMINOPHEN SAFE?

Many people with ongoing pain take acetaminophen (Tylenol, others) for relief. It's often considered safer than other pain relievers, such as nonsteroidal anti-inflammatory drugs (NSAIDs), when taken long-term. But recent studies have raised questions about acetaminophen's safety. A new study suggests that the drug may be associated with serious complications in people 65 and older.

The study, published in *Arthritis Care & Research*, used data from the U.K.'s Clinical Practice Research Datalink to compare about 180,000 people who had two or more prescriptions for acetaminophen in a six-month period with about 400,000 people who had fewer than two prescriptions for acetaminophen over the same time span. Those who had two or more prescriptions had a 36% increased risk of gastrointestinal bleeding, a 20% increased risk of peptic ulcers, a 19% increased risk of chronic kidney disease, and single-digit increases in heart failure and high blood pressure risks.

The study looked at long-term, repeated use of acetaminophen — not taking it for short-term pain such as headache. And the study had an important limitation: It was not able to identify or track use of nonprescription acetaminophen, so it's possible that people from both groups took the drug on their own. In the U.K., people over 65 receive free acetaminophen if they have a prescription, but they have to pay for a nonprescription purchase. The researchers accounted for the possibility that people who are more likely to take acetaminophen also may be more likely to take nonprescription NSAIDs such as ibuprofen and naproxen.

Mayo Clinic experts say that acetaminophen remains an important option for chronic pain and that more research is needed to understand how it may affect older adults. Talk with your healthcare team to determine the lowest dose that works to relieve your pain. Don't take more than the recommended dose, and don't drink alcohol while taking acetaminophen because that raises the risk of kidney or liver damage over time. ■

YOGA A WINNER FOR LOW BACK PAIN RELIEF

Yoga can seem daunting when you see people twisting themselves into pretzel-like positions. But it can be done at beginner levels, and doing this ancient exercise even in a gentle form has many health benefits, especially when the practice is tailored to the needs of the individual. A recent study supports yoga's role in easing low back pain.

The study, published in *JAMA Network Open*, included 141 adults. All had moderate to severe low back pain for at least three months. Most were women. For 12 weeks, half of the participants did a form of yoga called hatha, which emphasizes holding poses for extended periods while focusing on deep breathing. They did an hourlong guided session via video each week and agreed to practice daily on their own as well.

After 12 weeks, those who did yoga reported significantly more improvement — in back pain relief, quality sleep and reduction in use of pain medications — than did those who didn't do yoga. These benefits held up at 24 weeks, even though the formal study period ended after 12 weeks.

Many exercise programs involving stretching and strengthening muscles for the trunk and hip areas have been shown to help people with chronic low back pain. Yoga combines postures for flexibility, balance and strength, as well as breathing, meditation and relaxation. If you're new to yoga, find a beginner-level class such as gentle yoga or seniors yoga where the instructor starts off with easy movements and gives any modifications needed to make the postures safe for you. If you have back pain, you may benefit from working one-on-one with a certified yoga therapist. The therapist can design a custom yoga routine for you to do at home to help ease pain. ■

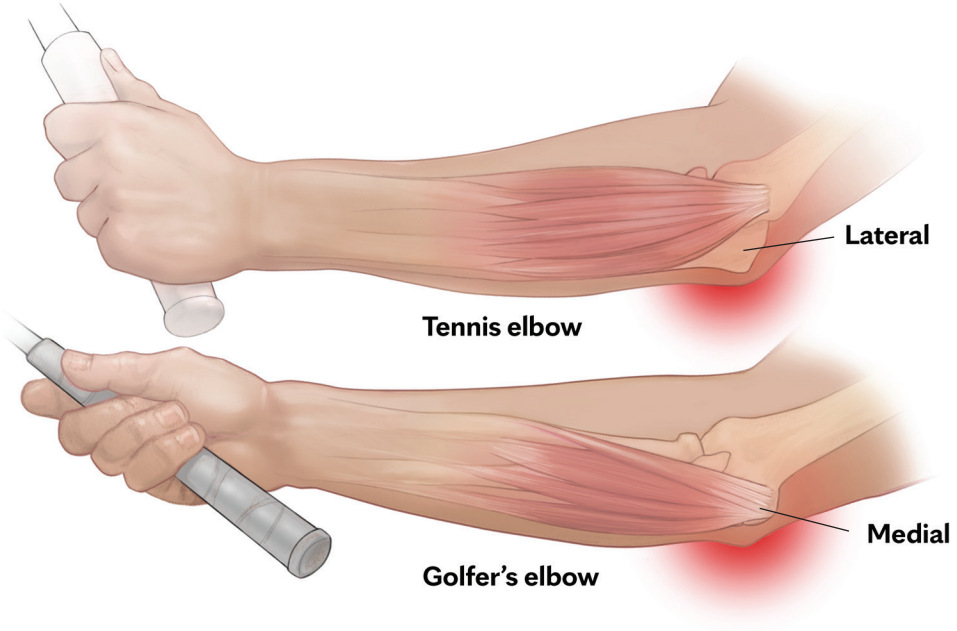
Tennis elbow and golfer's elbow

Speeding healing with special strengthening exercises

If you feel both sides of your elbow joint, you'll notice two bony knobs that bulge out a little from the rest of the joint. These prominences are called epicondyles (ep-ih-KON-diels). The epicondyles are the areas where tendons of the forearm muscles attach to the elbow joint.

Pain and tenderness can develop in these two areas when the muscles and tendons of the forearm are overused or overstressed. When inflammation persists for a long time, it can cause the breakdown (degeneration) of the tendon. The resulting condition is called tendinopathy. When pain occurs on the outside of your elbow, it's called lateral elbow tendinopathy or lateral epicondylitis. Another term for this is tennis elbow, which could perhaps be updated to include pickleball elbow. When pain occurs on the inside of your elbow, it's called medial elbow tendinopathy, medial epicondylitis or golfer's elbow. The pain of tendinopathy is often severe enough that you find yourself avoiding actions such as lifting heavier objects, gripping objects, or making certain movements — as well as avoiding sports and activities you enjoy.

Contrary to common belief, inflammation alone is not the cause of most pain that's associated with tendinopathy. Rather, the pain is caused mostly by damage, degeneration and disorganization of tendon tissues, with the development over time of tiny, new blood vessels in the area. The injury may heal within 6 to 12 months if you can avoid aggravating the area. Often, however, you need to visit a sports medicine specialist and a physical therapist to confirm the diagnosis and instruct you in an exercise program designed to improve your symptoms. In addition, other therapies may be available to help speed healing.



The bony prominences at the sides of the elbow, called epicondyles, are areas where muscles and tendons of the forearm attach to the elbow joint. Pain and tenderness that develops on the outside of the elbow is often referred to as tennis elbow. When pain occurs on the inside of the elbow, it's called golfer's elbow.

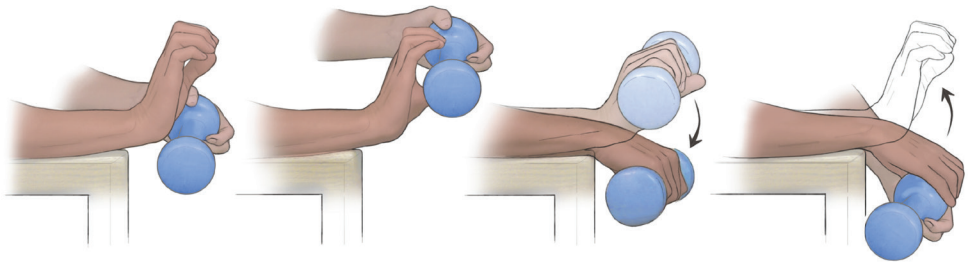
Reducing pain and aggravation

The sooner you can get a diagnosis and start therapy for elbow pain, the shorter the typical route to recovery. However, you can take several steps at home to help reduce pain and inflammation. These methods are not known to speed the healing process but they provide comfort:

- *Avoiding or modifying activities* — Keeping your wrist in a locked, neutral position when you lift objects allows the larger muscles of the upper arm to do most of the work rather than the muscles and tendons of the forearm. Additionally, if your injury is due to tennis, golf or another activity, instruction in proper technique can help you perform movements with less stress on the forearm and elbow.
- *Ice and pain control* — Using ice, heat or both on the affected area for 15 minutes 3 to 4 times a day may help with pain relief. Using nonprescription anti-inflammatory pain medication — such as ibuprofen or naproxen sodium — for a short time may help reduce pain. A topical, nonprescription anti-inflammatory medication such as diclofenac used short-term also may be helpful.
- *Gentle stretching* — Moving the elbow and wrist through their full range of motion and gentle stretching of the wrist in an up or down position can help loosen the muscle groups around the elbow if they are tight.
- *A forearm strap* — Wearing this around your upper forearm near the elbow may help reduce the burden of everyday movement on injured tendons. Straps should be snug but should not increase pain.

Speeding healing

Developing a plan for strengthening the affected arm is one of the mainstays of effective treatment. This includes learning how to perform strengthening exercises to help stimulate changes in the injured tendon that can reverse damage and degeneration, break up the troublesome growth of new blood vessels, and strengthen the muscle and tendon. This is called eccentric strengthening.



ECCENTRIC STRENGTHENING

Place the forearm of your affected arm flat on a surface. Lift that hand, then place a light weight into it with your free hand. Slowly, while counting to 10, lower the weight to a downward position. Remove the weight with your free hand. Then lift the empty hand back up. Repeat 3 to 5 times. This strengthening exercise may help speed healing of tennis elbow.

ARE STEROID INJECTIONS EFFECTIVE?

Mayo Clinic experts typically do not recommend injections of an inflammation-reducing steroid for tennis elbow or golfer's elbow. Studies have consistently shown that while steroid injections may provide short-term pain relief, this benefit does not hold for the long term. In fact, steroid injections may even lead to worse outcomes than other treatments.

Eccentric strengthening — as shown above — involves using resistance, such as hand weights or elastic bands, while contracted muscles are lengthening. For example, if you perform a bicep curl, eccentric strengthening occurs as you slowly lower the weight while your bicep is lengthening. Eccentric strengthening that targets the muscles of the forearm can help early on with an elbow tendon injury. But it is particularly effective with chronic tendinopathy, where there is generally more damage and degeneration of tissues.

Other options that may improve more stubborn tendinopathy include:

- *Shock wave therapy* — These treatments send sound waves to the injured tendon region to stimulate a healing response. Shock wave therapy may have a positive impact on kick-starting the healing process but generally requires multiple sessions over time. It also can be painful.
- *Injections and needle-based therapy* — Platelet-rich plasma (PRP), which is derived from a sample of your own blood, can be injected into the injured area to promote tendon healing. Using a needle to poke tiny holes in the injured tendon, with or without PRP, is called needle fenestration. Needle fenestration can help stimulate the release of your body's natural healing substances, which may help promote healing and resolve inflammation. More studies are needed to determine the effectiveness of PRP and needle fenestration, but some studies have shown promising results.
- Surgery — Surgery is s a last resort when other treatments have failed. But it may be suggested if the injury persists for more than a year. Recovery time depends on the degree of tendon degeneration and the type of surgery done. ■

HEALTH TIPS

SAFE DIET TIPS IF YOU TAKE ANTICOAGULANTS

If you take a blood thinner such as warfarin, you know that managing a safe diet is crucial. The good news is that no foods are really off-limits. However, you'll need be aware of the amount of vitamin K you are consuming. Spikes in vitamin K intake can raise the risk of unwanted clotting. Eating less vitamin K than your usual daily amount can raise the risk of bleeding. In short, the goal is to consume about same amount of vitamin K every day to keep levels steady in your body. Newer anticlotting drugs such as rivaroxaban (Xarelto) and apixaban (Eliquis) don't require the same vigilance about foods. Remember these tips to eat safely if you take warfarin:

- *Be consistent* — For foods that are high in vitamin K, eat the same number of servings every day. Leafy greens and cruciferous vegetables such as broccoli and Brussels sprouts tend to be high in vitamin K. Foods that are lower in vitamin K, such as asparagus, green beans and peas, can be eaten without as much consistency. Whether a food is high or low in vitamin K amounts, it's still best to know which foods contain vitamin K and avoid big changes in the amounts you eat. Consistency also is important if you take a supplement containing vitamin K.
- *Remember that serving size matters* — If the serving size of broccoli is 1/2 cup and you eat 2 cups, you've had 4 servings. Add up the vitamin K per serving. Cooking can affect serving size too. Make sure you look at cooked vs. raw serving sizes, especially with foods such as collards, kale, spinach, turnip greens and Swiss chard, which are very high in vitamin K.
- *Note any routine changes* — Be alert for disruptions to your diet. For example, you may eat more foods with vitamin K during summer when fresh vegetables — some high in vitamin K — are available. When you're sick, you may eat less vitamin K than usual. When you're away from home, your dietary choices and the amount you consume may vary significantly from your typical day to day. If your diet changes or if you foresee a change ahead, tell your care team. ■

Smart wearable devices

Maximizing their impact on your health

If you scroll through the data collected by the typical smart wearable — including fitness trackers, smartwatches and smart rings — you'll see much more than your number of steps or calories burned. Many devices also estimate heart rate variability, time spent in deep sleep and other data.

However, not all this information is accurate. Nor is it all helpful, says Thom Rieck, an exercise specialist at Mayo Clinic who has collaborated on several studies about smart wearable technology. According to Rieck, the most useful and trustworthy smart features tend to be the easiest ones to understand and use.

Make the best use of step counters

Nearly all smart wearables do a decent job tracking daily steps, says Rieck. This includes a smartphone as well as an average $15 pedometer. These trackers also can motivate you to move more.

"However, people tend to lose interest after around 6 weeks to 3 months," says Rieck. "Once the novelty wears off, the device often ends up in a drawer."

To stay motivated using this feature, Rieck recommends that you:

- *Respond to movement reminders* — When your wearable gives you an "it's time to stand" message, heed the call. Get up and move around for a minute or two. Though these short breaks may not seem like they amount to much individually, they add up.
- *Move your goalposts* — Once you know how many steps you take on an average day, set a short-term activity goal. If you take 2,000 steps a day, consider setting a goal of adding 1,000 steps daily for two weeks. Once you meet that goal, add a new one.
- *Share your milestones* — Tell friends or family about your daily steps. You might encourage one another's progress. Or you could sign up for a virtual or in-person step challenge.

Follow your heart rate

Higher end smart devices estimate your heart rate to within 3 to 5 beats per minute of your actual heart rate. Just make sure your device fits snugly. Smartwatches and bands shine light into your skin to measure your pulse. If there's a big gap between the device and your skin, the surrounding light can interfere with the reading, says Rieck.

If measuring your heart rate during a workout, make sure to tell your device that you're exercising. That way, it will take more frequent readings.

When you're not exercising, you may want to note your resting heart rate — the number of times your heart beats a minute when you're not moving.

First, determine your average resting heart rate over several days. Then pay attention to see if it changes.

If you find that your resting heart rate is 3 to 5 beats a minute higher than usual, consider whether your body is adjusting to factors such as lack of sleep, alcohol intake, an illness or high stress.

As you progress on a fitness program, your resting heart rate will likely drop a beat or two a month as your heart becomes more efficient. Or if you take a long break from exercise, you might notice your resting heart rate trending upward.

Understand VO-2 max

This term refers to your oxygen uptake. The "V" stands for volume, the "O2" for oxygen and the "max" for maximum. "A high VO-2 max makes movement feel easier because it gives you more capacity," says Rieck.

For example, it takes about 16 to 18 milliliters per kilogram per minute (mL/kg/min) of oxygen to climb a flight of steps. If your VO-2 max is 30 to 35, you'll likely get to the top of the steps without feeling winded, because you have plenty of room to spare. But if your VO-2 max is between 15 and 20 mL/kg/min, you may need a break or two along the way.

Smart wearables use your exercise pace and heart rate to estimate your VO-2 max. This estimate is pretty accurate, within 2 to 5 mL/kg/min.

Your target VO-2 max depends on your age, weight and sex, so make sure to input those variables into your device. As you become more fit, expect your VO-2 max to trend upward within about 3 to 6 months. Heat affects VO-2 max, so don't worry if it temporarily drops during warmer months. ■

BE SKEPTICAL WITH SOME HEALTH DATA

Your smart wearable likely tracks much more than your steps, heart rate and VO-2 max. However, a lot of this information is either less helpful or less accurate.

Calorie-counting features can be off by as much as 93%. Similarly, while most smart wearables can reliably tell your total sleep time, they do a poor job of estimating your sleep stages and number of awakenings.

In addition, some smart wearables advertise technology that tells the user when to work out — and when not to — based on the variation between each heartbeat, called heart rate variability (HRV). It's thought that HRV may reflect stress and recovery levels. However, the hype over HRV is ahead of the science, says Rieck. You're likely better off listening to your body. You might go easy or even skip an exercise session if you're feeling run down. But if you're focused and energized, it might be a good day for a vigorous session.

Over-the-counter hearing aids

Sound advice before you buy

If you find you need to turn up your TV volume or you have trouble understanding someone on the phone, your hearing may need a little boost. In recent years, shopping for hearing aids has become a lot more convenient with over-the-counter (OTC) hearing aids that are sold in stores and online without a prescription. In short that means you don't have to have a hearing test or a doctor visit to use them — much like those "cheater" reading glasses.

OTC hearing aids work best to help treat mild to moderate hearing loss for adults ages 18 or older. OTC hearing aids won't restore your hearing, but they'll help your ability to hear and communicate. Studies also have shown that improved hearing benefits many aspects of health, including reducing the risk of dementia and falls.

But OTC hearing aids have limits. They can't treat severe or profound hearing loss. If you struggle to hear someone in a quiet setting or have trouble hearing loud sounds, such as a truck or power tool, it's best to have an audiologist check your hearing. You may need prescription hearing aids. Sudden-onset hearing loss requires the attention of your healthcare team.

How to go OTC

If OTC hearing aids are something you'd like to pursue, the best first step still is to get a hearing checkup, especially if only one ear is affected. Your healthcare team can check for fixable causes of hearing loss such as earwax buildup or an infection. If you choose, you also can have your hearing tested by an audiologist. Your healthcare team can give you a referral. However, this is optional for OTC hearing aids.

Next, make a list of what factors are important, such as visibility, comfort, ease of use or cost. Decide which features matter most, such as wind reduction or directional microphones.

While the U.S. Food and Drug Administration oversees OTC hearing aids, there are still things to be more wary of with these aids versus prescription versions. Before you shop, keep these tips in mind:

- *Read the label* — Important information must be printed on the outside package labeling. Look for the company's phone number and warnings such as when to see your healthcare team. Also, check that "OTC" and "hearing aids" are clearly visible on the packaging.
- *Beware of misleading claims* — Hearing aids, prescription and nonprescription alike, can't restore regular hearing or get rid of all background noise. Beware of advertisements, packaging or people who claim otherwise.
- *Avoid phony claims* — There's no such thing as "FDA registered" or "FDA certified." Businesses that sell hearing aids need to register with the FDA. But the FDA doesn't approve or certify devices, and it doesn't issue registration certificates.

No matter which OTC hearing aids you choose, you'll need some time and practice to get used to them. Wear them regularly for the best success and greatest boost to your health. ■

WHAT TO CONSIDER WHEN SHOPPING FOR OTC HEARING AIDS

Where to shop	Shop online or retail stores such as pharmacies, electronics stores or wholesale clubs.
Style	OTC hearing aid styles include behind-the-ear, in-the-ear or receiver-in-the-ear. You'll fit the hearing aids yourself, so consider how easy they are to handle.
Cost	Price varies. OTC hearing aids typically start at $99 a pair, but they can cost nearly $3,000. You also can buy a single hearing aid.
Insurance coverage	Some private insurance providers may cover part or all of the cost of OTC hearing aids. Accessories may be extra. Check with your medical insurance to learn what your policy covers. Typically, Medicare doesn't cover the cost of hearing aids.
Battery	Check if the hearing aid uses disposable or rechargeable batteries. Check the battery life.
Customization	Some OTC self-fitting hearing aids can be customized with smartphone apps, software or hearing tests.
Bluetooth-compatibility	Some OTC hearing aids work with Bluetooth-compatible devices such as a smartphone. Bluetooth technology may allow you to adjust volume through an app, stream audio from your smartphone or make hands-free calls.
Warranty or return policy	OTC hearing aid makers don't need to include a warranty. But a one-year warranty that covers manufacturer defects is common. Check if there's a more extensive warranty or money-back guarantee. Find about the store's return policy.
Try before you buy	Ask if you can have a risk-free trial.

Second opinion

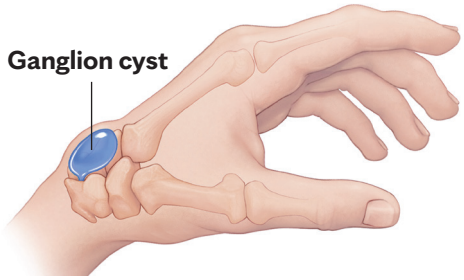
Q I've had a lump on my wrist with pain that just won't go away. My friend mentioned it could be a ganglion cyst. What should I know about this condition?

A Often a ganglion (GANG-glee-on) cyst looks and feels as if a small lump has formed beneath the surface of your skin, along the tendon or joint. Most often, the firm, smooth lump appears or can be felt on the wrist.

Ganglion cysts are filled with a jellylike substance and develop — sometimes rather abruptly — beneath the skin. They usually appear on the back of the wrist but may form on the top of the foot, the front of the wrist or at the finger joints. A ganglion cyst may vary in size from that of a BB pellet to a peach pit — and may change in size day to day or month to month. The lump may grow larger with physical activity and shrink when the joint is rested. A lump is more likely to occur with autoimmune arthritis, such as rheumatoid arthritis. These cysts can mimic serious tumors that appear on the hand, wrist or foot, so seek care from your healthcare team if a lump appears.

An old home remedy for a ganglion cyst involves hitting the cyst with a heavy object. This isn't a good thing to do. The force of the blow can cause damage. Also, sticking a needle in the cyst to try to pop it can lead to infection and isn't likely to be effective.

A member of your healthcare team may use a sterile needle to remove (aspirate) some of the liquid contents for examination. The procedure also can be used to treat a ganglion cyst — by removing all liquid contents.



This is sometimes followed by an injection of a cortisone-type drug. But these procedures may provide only temporary relief, as the stalk of the ganglion cyst remains in place and fluid can return.

Rarely, surgical removal of the cyst may be necessary. Surgery is done using a local anesthetic. The entire ganglion cyst and the connecting stalk are removed. You may not have use of your wrist for up to two weeks after surgery, and you may need to wear a splint during this time. You may have a small scar from the surgery. ■

Q Does using a mouthwash with alcohol increase the risk of oral cancers?

A Unfortunately, there's not a clear answer to the question.

Alcohol-based mouthwashes reduce dental plaque, cavities and gingivitis. They also help freshen breath. Many nonprescription mouthwashes contain up to 27% alcohol. Consuming alcohol is a known risk factor for mouth (oral) cancer, and it increases the risk of cancers of the throat, voice box (larynx) and esophagus. So it's natural to have concerns about the alcohol content in mouthwash.

Some studies suggest that long-term use and rinsing more than three times a day with an alcohol-based mouthwash — when combined with risk factors such as poor oral hygiene, smoking and high alcohol intake — may affect the risk of mouth cancers. One proposed reason behind this is that the alcohol in mouthwash breaks down into acetaldehyde. This is a toxic chemical and a potential cancer-causing substance. After swishing, acetaldehyde stays in the saliva for up to 10 minutes.

Alternately, one study found that after participants used an alcohol-based mouthwash daily for three months, two harmful bacteria, *Streptococcus anginosus* and *Fusobacterium nucleatum*, flourished. Increasing evidence links these bacteria to esophageal cancer.

However, the overall science is conflicting, inconclusive and lacks consensus, making it hard to associate alcohol-containing mouthwashes and cancer risk. More study is needed.

Here's the bottom line: The American Dental Association advises that using a mouthwash does not take the place of optimal brushing and flossing. You may want to rethink the swish or use an alcohol-free mouthwash if you're concerned about mouth cancers or other alcohol-related health risks — especially if you have known risk factors. If you take medicines known to interact with alcohol, opt for a mouthwash that doesn't contain alcohol.

In general, it's important to not overuse mouthwash. Check the label for recommended limits — no more than twice a day is typically best — and avoid use if you have open cuts or sores. ■

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