

How to quit
smoking for good

The emotional side of
cancer screenings

Why early lung cancer
detection matters

winter 2019
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Breathe Easier

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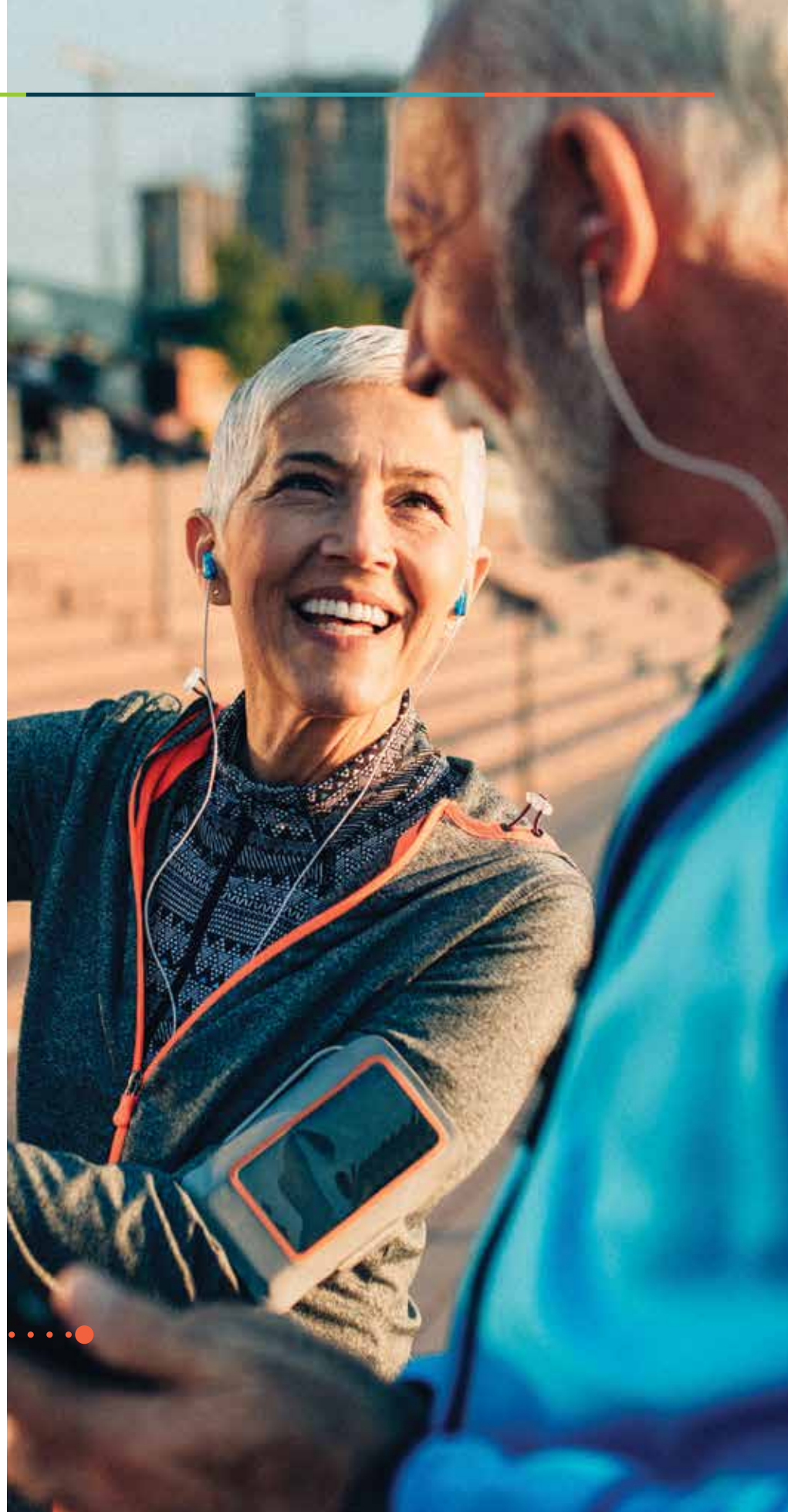
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UP FRONT

Insight from Vanderbilt Health researchers and physicians

ASK AN EXPERT

Do I Really Need a Lung Screening?

Not sure if you need an annual screening for lung cancer? Run through this checklist with your doctor.

Q Am I of an age where lung screenings should be considered?

Lung screenings are usually recommended for anyone 55 to 80 who is at higher risk for lung cancer, according to U.S. Preventive Services Task Force guidelines.

Q I'm of age, but am I at a higher risk?

The U.S. Preventive Services Task Force recommends annual lung screenings for those who have a 30 pack-year cigarette smoking history. That means if you've smoked on average a pack a day for 30 years or more, you should get annual screenings. Any equivalent also applies (ie. two packs a day for 15 years).

Q I meet the age and smoking history criteria. How long will I need to be screened?

The recommendation is annual screenings until a person reaches age 80 or has not smoked in the past 15 years.

Q I don't meet the age and smoking history criteria. Should I still be screened?

Most health insurance plans won't cover screening unless an individual meets the criteria under the current guidelines. However, patients can pay for the test out of pocket (\$145 at Vanderbilt Health clinics) if they prefer. People who have a family history of lung cancer, a history of other cancers or have been exposed to carcinogens on the job should discuss those additional risk factors with their health-care providers.

Q Are there any risks to being screened?

As with any tests, there are always risks. The radiation exposure is low. However, one thing to be aware of is the risk of false positives — a positive screening exam usually results in additional imaging, but occasionally requires biopsies or surgeries where cancer may not be found. On the other hand, there's also the risk that cancer might be missed, which is why yearly screening is crucial. When an at-risk patient is watched annually, there's a much higher probability that cancer will be caught early, which is when it's most treatable. ●



UP FRONT

Insight from Vanderbilt Health researchers and physicians

BY THE NUMBERS

TENNESSEANS & LUNG CANCER: THE FACTS

As a state, we're coming up short on our score for lung health — but that can change with earlier lung cancer detection.

TENNESSEE

Only Kentucky, Arkansas and West Virginia have higher lung cancer incidence rates than Tennessee.

47%

of lung cancer cases in Tennessee are not caught until a late stage, when the survival rate is **4.5%**.



More than **4,000** Tennesseans die of lung cancer every year. Early detection can help change this.



The smoking rate in Tennessee is **21.9%**, almost 5 points higher than the national average.

1 in 4

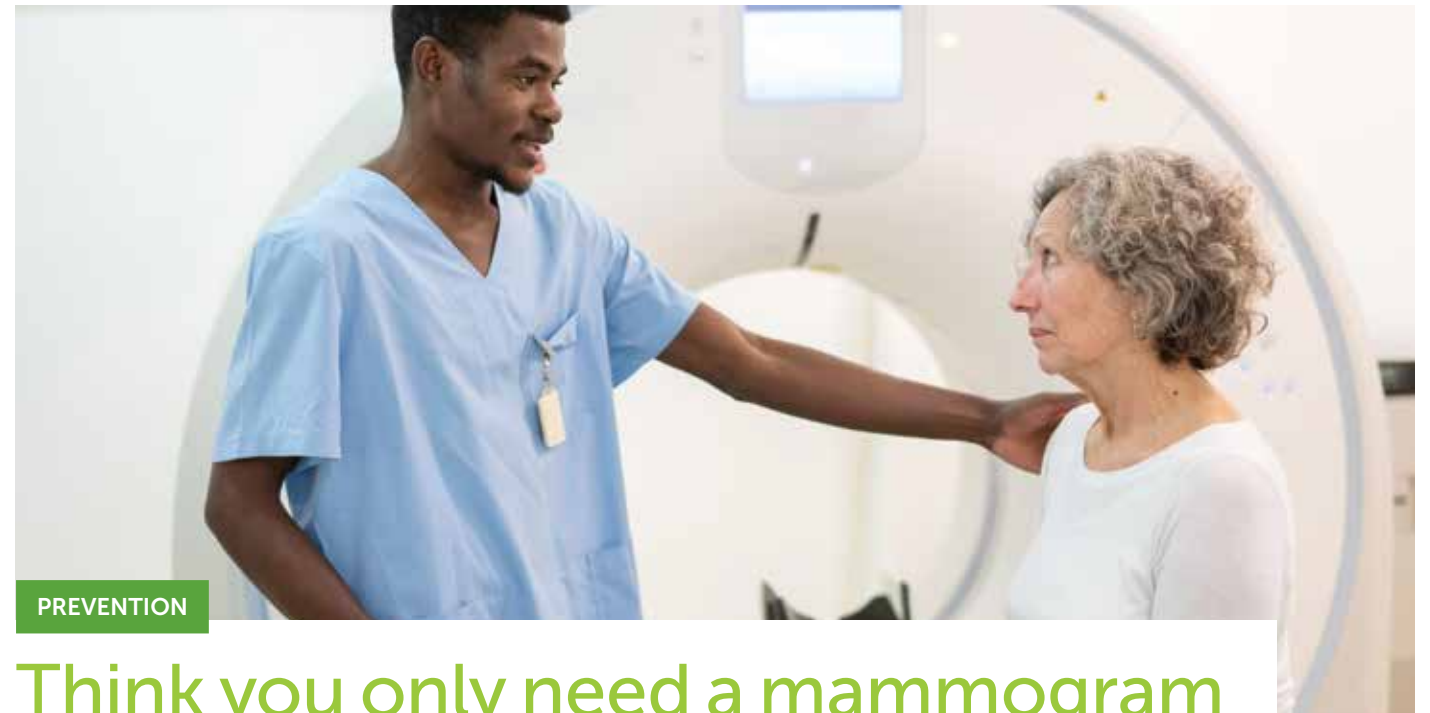
cancer deaths worldwide are the result of lung cancer, making it the leading cause of cancer deaths.

60%

of the cancers diagnosed with lung screening are caught at stage 1.



Lung cancers that are caught with lung screening are **80-90%** more likely to be cured.



PREVENTION

Think you only need a mammogram or a colonoscopy? Think again.

Other cancer screenings may get more attention, but a lung screening is just as critical for those at risk.



Colonoscopies to screen for colorectal cancer and mammograms to screen for breast cancer are talked about more often than screening for lung cancer. But a yearly lung screening with low-dose computed tomography (CT) is just as crucial for individuals who are at higher risk.

"Early-stage disease is very often curable," said Kim Sandler, M.D., co-director of the Vanderbilt Lung Screening Program. The five-year survival rates for stage 1 lung cancer are above 60%, but they're less than 10% for late-stage disease.

"Survival is largely dependent on when your lung cancer is found," Sandler added.

WHAT THE RESEARCH SAYS

The National Lung Screening Trial showed a 20% drop in the mortality rate due to lung cancer and an almost 7% drop in mortality due to all causes in individuals who

had undergone low-dose CT, when compared to people who had been screened with chest X-ray.

Additional studies have shown an even greater benefit. Sandler said mortality rate reductions are probably closer to 40%. "It's been shown to be as high as 69% in women," Sandler added. "Women tend to get a type of lung cancer that grows more slowly. We actually have more time to catch it with screening."

WHO'S CONSIDERED "AT RISK"?

Individuals age 55 to 80 who have a 30 pack-year history. These guidelines, which are used to determine who is covered by insurance, apply to those who currently smoke or who have quit within the past 15 years.

But those guidelines may change if studies show a benefit to screening younger patients. "We published an article in *JAMA Oncology* earlier this year," Sandler

said, "showing that the screening recommendations are lacking for African Americans because they tend to develop lung cancer at younger ages and with less tobacco exposure."

Sandler pointed out that lung cancer and related deaths are prevalent without tobacco use, as well, regardless of age or race.

"People think only smokers get lung cancer, which is not true," she said. "If you look at lung cancer and you exclude all of the smoking-related lung cancers, lung cancer would still be the seventh-leading cause of cancer-related mortality in non-smokers." ●

Not sure if you meet the screening criteria?

Take the free quiz on our website to find out if you qualify as high-risk.

VANDERBILTUNGSCREENING.COM

Everything You Need to Know About Lung Screenings

First things first: Getting screened is one of the most important things you can do for your lung health. Here's more on what to expect.

➔ After smoking for decades, Susan Sager laid down her cigarettes one day and hasn't picked one up since. That momentous day? It was the day she was diagnosed with lung cancer.

Like so many smokers, Sager started in high school, mostly because of peer pressure and because "that's what we did in North Carolina." As the years passed, her doctor prodded her constantly to kick the habit.

"We had to come to an agreement. He would quit harping on me to quit smoking if I would have a lung screening test yearly, which I did. I continued to do so when I moved here 14 years ago," said Sager.

That's probably what saved her life. When her nagging cough wouldn't go away, Sager followed up. The lung scan showed "little starbursts" in her lung, and more tests confirmed she had cancer. Her medical team moved swiftly to remove the upper right lobe of her lung. This December, she is celebrating five years of being cancer-free.

Those little starbursts, or nodules, are often the first indication that a serious problem could exist, and that's why it's so important for people at high risk for lung cancer get annual lung screenings.

"We're screening people before they have any signs or symptoms. The hope is to find cancers earlier, when they are more treatable, by doing annual imaging," said Alexis Paulson, MSN, radiology nurse practitioner and clinical coordinator of the Vanderbilt Lung Screening Program. "It's similar to getting mammograms before there's a symptom or concern." Here, Paulson and radiologist Kim Sandler, M.D., answer common questions they hear about lung cancer screening.

Who should get screened for lung cancer?

People with the highest risk for lung cancer should be screened. That means those ages 55 to 80 who are current smokers, or who quit smoking within the past 15 years, and who have a 30 pack-year history of smoking.

A 30 pack-year smoking habit means smoking

"We're screening people before they have any signs or symptoms. The hope is to find cancers earlier, when they are more treatable, by doing annual imaging."

People whose lung cancer is caught early have an **excellent chance of becoming disease-free through surgery** – in a few cases, without having chemotherapy or radiation.

a pack of cigarettes per day for 30 years or equivalent exposure – for example, smoking a half pack per day for 60 years. Paulson helps smokers determine their pack-year history when they meet with her prior to the screening.

People who have not smoked in more than 15 years are not considered as high of risk for lung cancer, Sandler said: "When you quit smoking, your risk of lung cancer goes down significantly."

Why should I get a CT lung screening?

The screening is meant to catch lung cancer in its early stages, so it can be treated more successfully.

It's designed according to the findings of a major lung cancer study published in 2011 in the New England Journal of Medicine. The study enrolled patients at Vanderbilt University Medical Center and 32 other academic centers throughout the U.S. It screened more than 50,000 people at high risk for lung cancer, some using conventional X-rays and some with CT scans. The study found that the patients receiving annual CT scans were significantly less likely to die during the six-year period of the study than those who were scanned with conventional X-rays,

Are you considered high-risk? Let's talk.

Have questions?
(615) 322-0580

Already have an order from your physician?
Call us to schedule an appointment.
(615) 936-3606

VANDERBILTUNGSCREENING.COM



A CT lung scan requires no needle, no pain and no loud noises, and only takes seconds to complete.

because the CT scan detected nodules earlier.

The CT scan used in Vanderbilt's screening can detect lung nodules measuring just 1 to 2 millimeters, the thickness of a grain of rice.

If the scan finds such a nodule in someone's lungs, Sandler recommends follow-up screening to monitor it. If the mass grows larger than 6 millimeters, it's time for more frequent scans or for a biopsy to learn if the nodule is cancerous or benign.

"The hope is when we're seeing something that small, that's the only sign of disease," Sandler said.

Are lung cancer screenings covered by insurance?

Medicare covers the cost of lung cancer screening for high-risk smokers up to age 77. Some private insurance plans cover the scan up to age 80. People should check with their insurers for details of their coverage.

How much does it cost to get screened for lung cancer if you're paying out of pocket?

While not recommended by the guidelines, people

who do not meet the high-risk criteria for lung cancer but have orders from their providers can still be screened, and the program offers a self-pay rate of \$145 for the annual screening. Most likely, the chance of a false-positive result, unnecessary follow ups and treatment are higher for these patients than the chance of having lung cancer. Paulson meets with patients to discuss their risks and the possible benefits of screening for them individually before they have the screening.

What is the scan like? I don't like pain, needles or claustrophobic machines.

Patients, fully clothed, lie on their back in the scanner, which is shaped like a donut – head and legs stick out on either end and only the torso is enclosed in the machine. They must lie still for about 10 seconds. There's no needle, no pain and no loud noises. People get their results within two business days.

Paulson meets with patients at the beginning of their scan appointment to talk through their smoking history and the risks and benefits of the scan. Patients

have their meeting and scan in one visit. The whole process usually takes less than one hour.

If the scan finds an abnormality, what happens next?

Most – about 90% – of people screened at Vanderbilt get a negative test result, meaning their scans show no evidence of lung cancer. The imaging team comprises six radiologists specially trained in reading lung scans, so Vanderbilt's program has a particularly low number of false positives (a scan that indicates cancer where there is none). About 4 out of 100 will have suspicious nodules that should be scanned again within a few months, Paulson said. Of those, only one in four will likely have cancer. For those with suspicious results, the next step is typically more imaging tests, Paulson said – it's usually not a biopsy or an invasive procedure.

Those at high risk are aged **55-80**, have a **30-pack year smoking history** and are **current smokers or quit within the last 15 years**.

How often am I supposed to get screened?

People who meet the criteria for screening should continue to get a scan once every year, until they are either older than 80 or have been smoke-free for at least 15 years.

For those whose screenings reveal a lung nodule, the team may recommend coming back for another imaging test in less than one year.

Do I have to quit smoking?

Patients do not have to quit smoking to be screened, Paulson said, although a newer study has shown that those who quit at the time of starting lung screening can potentially double their six-year survival rate from lung cancer compared with those who continue smoking, Paulson said.

The lung screening program encourages smokers to quit, and offers support for those ready to break their tobacco habit. Quitting lowers the risk of lung cancer, Sandler said, even for people who have smoked for decades.

Lung cancer screening is not about guilt, Sandler said. Rather, it's meant to save lives by finding any cancer early, when it's easiest to treat. ●



The Emotional Side of Being Screened for Lung Cancer

Patients talk through lots of fears before getting screened. Here, Kim Sandler, M.D., and Alexis Paulson of the Vanderbilt Lung Screening Program discuss the concerns that seem to be most often on patients' minds.

WILL ANYONE MAKE ME FEEL GUILTY ABOUT SMOKING?

Some people coming into the lung screening program are reluctant to be screened because they worry that a positive result (finding a suspicious nodule) will trigger blame. "They feel they've been judged by the medical profession in the past because of their smoking," Sandler said – or by loved ones. They fear that "if they are found to have lung cancer, that friends and family members are going to say things like, 'I told you so,' or 'I asked you to quit this many years ago' and 'this is something that you did to yourself.'"

But Sandler says screening is not about guilt – it's meant to catch tumors as early

as possible, to make treatment as easy and successful as possible. "The majority of diagnoses we make are in the early stage," she said. "The survival rates are so much higher for early-stage than for late-stage cancer."

WILL THE DOCTOR PRESSURE ME TO QUIT SMOKING?

Pressure? No. Support? Yes.

Paulson recognizes that not everyone is ready to quit smoking, and she doesn't load people up with guilt and lectures. They can be screened anyway, without having to quit, and can take advantage of the screening program's tools and tactics for quitting when they're ready.

Paulson said people who quit smoking when they start annual lung screenings can almost double their 6-year survival rate from lung cancer. She recalls many patients who return for their next yearly screening, proud to announce that they've quit smoking.

I'VE ALREADY FOUGHT CANCER. I DON'T WANT TO GO THROUGH THAT AGAIN.

Because people eligible for lung cancer screening are older adults – ages 55 to 80 – some of them have already experienced cancer. Many are retired, enjoying life and feeling healthy. They're not sure they'd go through the time and stress of treatment again if they got another cancer diagnosis.

Paulson reassures them that more than 90 percent of screenings reveal no abnormalities, so most patients will not have to confront additional testing or a diagnosis. Also, the screening is meant to catch lung cancer in its earliest stage, when it is small and hasn't spread beyond the lungs. Sandler noted that some patients whose lung cancer is caught at an early stage are treated successfully with only surgery – no chemotherapy, no radiation. ●

IN HER OWN WORDS

THERE IS NO OUCH

An open letter to those considering lung screenings from lung cancer survivor **Kathy Leiser**.

Please let me tell you about what happened to me eight years ago. It will only take a minute.

In 2011, I heard about a clinical trial for the early detection of lung cancer. I thought it would be smart to join, so I did. Even though I felt perfectly fine, I was a longtime smoker. One of the tests in the trial was a lung CT scan. I knew nothing about them, but soon found out that lung CT scans are the best tool to find early-stage lung cancer.

At the time, I didn't know how valuable this decision would be to my life. It only took three days for me to know its value when I received the results: That CT scan found stage 1a lung cancer. I had no idea that a cancerous tumor had started to grow in my lung. I'd had a chest X-ray just 14 months before and it had been clear. I had no symptoms.

Why no symptoms? Because early-stage lung cancer is silent – really silent.

My cancer was found so early I only needed surgery to remove it, no chemo and no radiation. Oh, my – my guardian angels were working overtime. That CT scan saved my life. Without that scan, I wouldn't be writing this letter to you now.

What did the CT scan give me? It gave me many more years with my family. I am here to cook breakfast for my family every Sunday. The CT scan gave me the opportunity to be here for my sons – the birthdays, the graduations, the weddings – my grandchildren and hopefully some great-grandchildren.

You already know the important role of testing in finding early-stage cancer. That's why you might have a mammogram or a colonoscopy. You're checking for breast cancer or colon cancer, so why not check for lung cancer, too? It's even more important to find lung cancer early because it's harder to treat in the late stages than breast cancer.

A CT scan is so easy – so much easier than a mammogram – and only takes 10 minutes. Those 10 minutes could save your life.

I wish I could be there to talk to you about the importance of getting a CT scan. I can't be there, but the Vanderbilt team is here for you. Please hear what they have to say. They just might save your life – they saved mine.

I'm so grateful I listened and took the time for the CT scan.

Best regards,

KATHY LEISER
8-Year Lung Cancer Survivor



HOW
TO
MAKE

THIS TIME

Ready to quit?

Get help from the friendly counselors at the Tennessee Tobacco Quitline.

1-800-784-8669 | tnquitline.org

THE LAST TIME

Breaking the smoking habit is no easy task — but it's the most important thing you can do for yourself and your health.



As the founding director of the Vanderbilt Center for Tobacco, Addiction and Lifestyle, Hilary Tindle, M.D., knows how hard it is to break the smoking habit. But she also knows — and will tell you without skipping a beat — that “it’s absolutely true that quitting smoking is the best thing people can do for their health.”

The benefits of quitting kick in almost immediately. Within 20 minutes, Tindle said, blood pressure drops. The risk of having a heart attack begins to decrease two weeks to three months after your last cigarette. Within a year of quitting, a smoker’s risk of heart disease drops by half. And after 10 smoke-free years, the risk of dying from lung cancer is half the risk faced by someone who is still smoking.

But even with this knowledge, quitting is a challenge. Typically, it takes five or more attempts to stop smoking for good. If you’ve tried to quit unsuccessfully in the past — or if you’re the partner or relative of a smoker who has given up on quitting — it’s important to recognize that you’re dealing with breaking an addiction. Arm yourself with as many tools and as much support as possible. And if you relapse, forgive yourself — and then try again.

Ready to give it another chance, or to take that first step toward quitting? Here, we’ve compiled some of My Southern Health’s best smoking cessation tips into one how-to guide to help you meet your goals.

The most important advice? Don’t give up. And

remember that while staying smoke-free may feel difficult sometimes, it’s the single best thing you can do for your health.

HOW TO QUIT “SLOW TURKEY”

The traditional way to quit is to choose a quit date and stick to it. Your quit date can be the start of your efforts to quit, the day you stop smoking cigarettes completely or start tapering off cigarettes. And while there’s some dramatic appeal to quitting cold turkey — going from your usual cigarette consumption to no nicotine at all — it’s not Tindle’s first recommendation.

Instead, you’ll probably do better by starting out using nicotine replacement such as the patch, gum or lozenges. They’ll soften your withdrawal symptoms. Nicotine replacement is typically used for two to three months, with the nicotine dose gradually decreasing over that time.

Another tactic is to gradually cut back, called “cutting down to quit.” Using this strategy, you cut down on the number of cigarettes smoked each day for a certain period of time before your quit date, and use only nicotine replacement — no cigarettes — from the quit date on.

HOW TO CURB THE CRAVINGS

First and foremost, get rid of cigarettes and things that remind you of them before the cravings start

(don't keep lighters or ashtrays around, for example). Next, think in advance of what situations are likely to trigger your cravings — common triggers include being around other smokers, drinking coffee, drinking alcohol and feeling stressed. If triggers are unavoidable, think of proactive things you can do instead of having a cigarette. If a trigger is finishing a meal, for instance, you might promise yourself to go for a walk immediately after eating. When you're tempted to have a cigarette, tell yourself to hold off for 10 or 15 minutes. That gives you time to distract yourself from the craving using the strategies you brainstormed in advance.

Studies show that people are about two to three times more likely to be smoke-free six to 12 months later if they use nicotine replacement or other medication, plus counseling, compared with those who don't.

The best way to manage cravings, though, is to prevent or reduce them. Nicotine-replacement medications, or prescription drugs designed to help you quit smoking, can help accomplish this, as can wearing a nicotine-replacement patch, chewing nicotine gum or using nicotine lozenges. All of those contain less nicotine than cigarettes and they break your practice of turning to cigarettes.

HOW TO CHOOSE A NICOTINE REPLACEMENT

Studies show that people are about two to three times more likely to be smoke-free six to 12 months after their quit dates if they use nicotine replacement or other medication, plus counseling, compared with those who don't use those tools.

Over-the-counter nicotine replacement products include the patch, gum and lozenges. Gum and lozenges are short-acting, meaning you should use them throughout the day to help manage cravings and withdrawal symptoms. The patch is long-acting; it's designed to give you a consistent dose of nicotine throughout the day to allow your body to slowly get used to lower levels of nicotine. People who smoke every day and try to quit with the help of these products tend to have greater success when they combine



Within weeks of your last cigarette, your lung function increases and circulation improves, enabling you to enjoy being active again.

them. In a "patch plus" strategy, you put the patch on daily and use the gum or lozenge as needed.

There are also several prescription options. An inhaler is a cartridge with a mouthpiece that delivers nicotine through the mucous membranes in your mouth. You control the dosage by the number of cartridges you use each day, with the aim of tapering off over several months. There's also a nasal spray — nicotine gets into your bloodstream from being absorbed by the lining of your nose. One spray to each nostril delivers about 1 mg of nicotine.

Then there are two non-nicotine medications — varenicline, known by the branded name Chantix, and bupropion, known by the branded name Zyban — which come in pill form. Like nicotine replacement, they act in the brain to reduce cravings and ease withdrawal symptoms. Often doctors prescribe them for people to begin taking before their target quit date. They can also be prescribed in combination with nicotine replacement medications.

HOW TO FIND SUPPORT

Enter this number into your cell phone: 1-800-784-8669. That's the Tennessee Tobacco Quitline, which lets you work with a counselor to create a plan for quitting. The Quitline is staffed Monday through Friday, 7 a.m. to 10 p.m.; Saturday 8 a.m. to 5 p.m.; and Sunday 10 a.m. to 4 p.m. (Central time). Calls are free and confidential. You can use it online, too, at tnquitline.org.

Smokefree.gov is a website with links to many helpful tools, among them: phone apps (such as quitSTART), mobile texting services for specific

groups (such as teens or pregnant women) and a worksheet for creating a plan to quit. The Centers for Disease Control and Prevention also posts tips from former smokers, which is powerful inspiration for when your motivation fades.

HOW TO HELP A LOVED ONE WHO'S QUITTING SMOKING

Expect your loved one to feel cranky — and all those other feelings, too. Be patient. Don't take it personally. And while you're gracefully tolerating the moods, there are other things you can also do to increase your family member's odds of quitting cigarettes for good.

Keep gum, breath mints or toothpicks in the house, the car or in your pockets to offer to your loved one during cravings. If he or she is using nicotine replacement products, such as nicotine gum or lozenges, keep some on you to offer when needed.

Avoid taking your loved one places associated with smoking, such as bars or the homes of friends who smoke. If a situation does trigger a craving, create a distraction. This is the time to run errands together, go for a walk, go someplace new, offer to do a chore together or provide some hands-on pampering. (Back rubs, anyone?)

Lastly: If you're also a smoker, quit! Like starting an exercise program, quitting smoking is a little bit easier if you do it with a buddy. You can hold each other accountable, provide motivation and moral support or maybe an element of competition. Your loved one will have a somewhat better time quitting if you're not smoking yourself. ●

This Is Your Body After Smoking

Twenty minutes after your last cigarette, your health is already improving. Here's what you can expect as you begin your journey as a nonsmoker.

20 minutes

- Your heart rate and blood pressure drop.

12 hours

- Carbon monoxide level in your blood drops back to normal.

48 hours

- Damaged nerve endings begin to regenerate.
- Senses of smell and taste begin to return to normal.

2 weeks to 3 months

- Risk of heart attack begins to decrease.
- Circulation improves.
- Lung function increases.

1 to 9 months

- Coughing and shortness of breath begin to decrease.
- Respiratory cilia in the lungs start to regain normal function, increasing the ability to handle mucus and clean the lungs and reducing the risk of infection.

1 year

- Excess risk of coronary disease is half that of a continuing smoker.

5 years

- Risk of cancer of the mouth, throat, esophagus and bladder are cut in half.
- Cervical cancer and stroke risk fall to half that of a nonsmoker.
- Risk of coronary disease approaches that of a nonsmoker.

10 years

- The risk of dying from lung cancer is about half that of a person who is still smoking.
- The risk of cancer of the larynx and pancreas decreases.

Early detection saves lives

Lung cancers that are caught with lung screening are 80-90% more likely to be cured.

SCREENINGS AVAILABLE AT THESE LOCATIONS

Cool Springs Imaging

2009 Mallory Lane,
Suite 150
Franklin, TN 37067

Hillsboro Imaging

1909 Acklen Avenue
Nashville, TN 37212

One Hundred Oaks Imaging

719 Thompson Lane,
Suite 23300
Nashville, TN 37204

**Make this the year
you begin your annual
lung screening.**

Have questions?
(615) 322-0580

Ready to schedule an appointment?
(615) 936-3606

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