Learn all your treatment options

Overcome your top eating challenges

Health Ming nitor





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High Cholesterol

From the time she was in her 20s, Janell Harshbarger couldn't get her high LDLs to budge. Today, with the help of a new medication, her numbers are down and her peace of mind is at an all-time high.

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treatment switch,
her numbers
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mind is at an
all-time high.

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DAMA



Don't let high cholesterol take you by surprise!

If you're one of the millions of Americans living with high cholesterol, you are at higher risk for heart attack and stroke. Luckily, today's treatments can help improve even the most stubborn cases and increase your odds of enjoying a long and healthy life!



arryl C. remembers with perfect clarity the "special wakeup call" he received when he was still in his 40s.

"I was on a work trip and woke up in my hotel room thinking I might be coming down with the flu," recalls the now-retired former

sales associate. "I was in a cold sweat, my whole body hurt and I felt like I was going to throw up."

Trying to rally, Darryl got up and met his colleagues in the lobby for breakfast. "They took one look at me and said I needed to go to the hospital," Darryl recalls. "I thought they were being dramatic, but when I got there it turns out I was having a heart attack! My dad passed from a heart attack at 40, so it really hit home."

Doctors said Darryl arrived at the hospital just in time. He was rushed into surgery to fix four completely blocked arteries.

"When I finally came to, I found out that my bloodwork said my total cholesterol was over 400 mg/dL, twice what it should be, and that my 'LDL' or 'bad' cholesterol was way too high at over $250\,\text{mg/dL}$. I had no idea! I never had any symptoms."

When Darryl was stable enough to return home, he made an appointment with a cardiologist who prescribed a cholesterol-lowering drug called a statin. He also met with a dietitian to Continued on next page



HIGH CHOLESTEROL FAST FACTS



The number of people who could benefit from cholestero medicine who aren't currently taking one

7%
THE PERCENTAGE
OF MINORS AGES
6 TO 19 IN THE
U.S. WHO HAVE
HIGH TOTAL
CHOLESTEROL

Source: Centers for Disease Control and Prevention help him figure out how to eat healthier and joined a gym. Unfortunately, despite all this, while his cholesterol numbers did go down, they never quite reached the targets his doctor hoped for.

Fast forward to 2015, and Darryl's cardiologist suggested they try a "PCSK9 inhibitor" which helps the liver eliminate excess LDL cholesterol.

Unfortunately, Darryl wasn't able to tolerate the side effects. However, a few years ago his doctor suggested they try another injectable add-on medication that works against PCSK9 in a different way, and this time not only was Darryl able to tolerate it, but his cholesterol levels plummeted.

"Today, my numbers are still in range, I haven't had any other events since that heart attack and this new medication has really freed me up in ways I didn't think possible. Now I'm focused on the important things, like enjoying retirement and spending time with my grandson!"

If you've been struggling to get your numbers down, talk to your healthcare provider. To-day's treatment options can help you gain control over high cholesterol. Read on for more.

What to know about cholesterol

A waxy substance, cholesterol is primarily made in the liver and plays a vital role in the manufacture of cells, hormones and vitamin D, among other functions. However, your body makes all the cholesterol it needs, so any extra you get through your diet is just that—extra.

 $\label{lem:cholesterol} Cholesterol\,travels\,through\\ the\,bloodstream\,in\,fatty\,pack-$

ages called lipoproteins. There are two main types:

- LDL (low-density) lipoproteins. This is known as the bad cholesterol because if you have too much of it, it tends to build up on artery walls, causing them to get stiff and narrow. High levels of LDL raise your risk for heart disease.
- HDL (high-density) lipoproteins. This type carries excess cholesterol from the blood to the liver, so it can be flushed from the body. Low HDL is associated with an increased risk for heart disease.

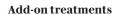
The problem with LDLs

Since the body makes all the cholesterol it needs, any excess can increase LDL levels. This extra amount builds up within artery walls and hardens into plaque, stiffening vessels and impairing blood flow-a condition known as atherosclerosis. When plaque affects the arteries supplying blood to the heart, it can lead to coronary artery disease (CAD) and over time can trigger a heart attack, stroke, heart failure, peripheral artery disease and more. That's why treatment for high cholesterol targets LDL. By lowering those levels, you can fend off other heart problems and maybe even reverse or stabilize the plaque buildup in your arteries.

How treatments help First-line treatment

• Statins: These or al medications help decrease the liver's production of cholesterol, lowering LDL and triglyceride levels. If a statin isn't enough, oth-

er treatments may be added on to lower your LDL levels.



- *Ezetimibe:* This oral drug prevents your intestines from absorbing cholesterol from the food you eat and even the cholesterol made by the body itself.
- Inclisiran and PCSK9 inhibitors: These injections boost your body's ability to remove LDL from the blood. They ramp up LDL receptors in your liver, which trap LDL particles and take them out of circulation. In patients already on a statin, they may cut LDL levels by up to half.
- *MTP inhibitors:* These oral medications inactivate a pro-

tein that triggers production of LDLs; they're especially useful in people with a genetic predisposition to high cholesterol.

- Bempedoic acid: This oral med blocks an enzyme in the liver that helps produce cholesterol; it's useful in people with a genetic predisposition to high cholesterol.
- Bile acid sequestrants: These oral medications cause the liver to increase bile, resulting in less cholesterol in the bloodstream.
- Omega-3 fatty acids (prescription strength): These oral medications help lower triglycerides; icosapent ethyl may reduce the risk of heart attack or stroke in cer-

tain high-risk people with triglyceride levels of 150 mg/dL or higher.

• Fibrates: These oral medications help lower triglycerides in certain people with triglyceride levels of 500 mg/dL or higher.

Taking charge

It's true that you can't control certain risk factors that raise cholesterol. For example, some people are born with a genetic predisposition to high cholesterol known as familial hypercholesterolemia (FH). For others, age (those 20 to 60 tend to see rising levels) and sex (men younger than 50 and women post-menopause tend







HIGH CHOLESTEROL FAST FACT

10%
THE PERCENTAGE
OF ADULTS
AGE 20 OR
OLDER
WHOSE TOTAL
CHOLESTEROL
LEVELS WERE
ABOVE
240 MG/DL

Source: Centers for Disease Control and Prevention to have higher cholesterol) may bring a higher risk. However, there's a lot you can do to control your levels. In addition to taking any medication exactly as prescribed, always attend scheduled checkups—regular exams and blood tests are the best way to ensure your treatment is on track. And be sure

your doctor:
• Eating plan: Aim for a low saturated-fat, high-fiber diet rich in whole grains, lean protein and fruits and vegetables.
Avoid saturated fat and trans

to discuss the following with

fat, found in animal products and processed and storebought baked foods.

- *Physical activity:* Aim for 150 minutes a week of exercise, such as walking, dancing, weight training, etc.
- Healthy weight: Carrying extra pounds is linked to high cholesterol. However, losing just 5% to 10% of your weight can improve your levels.
- *Quitting smoking:* Research suggests that smoking can lower HDL levels and damage arteries.
- Other conditions: Diabetes

and high triglycerides are both linked with higher LDLs. Getting those numbers in line can improve your cholesterol.

The bottom line

If your cholesterol numbers aren't where they should be, take a cue from Darryl: Work with your healthcare team, explore your treatment options, share your family history and learn all you can about how cholesterol affects your heart and blood vessels. You, too, will find the approach that brings results.

Do you know your cholesterol levels?

A blood test called a lipoprotein profile measures levels of total, LDL and HDL cholesterol. Review this chart to see where you stand.

TOTAL CHOLESTEROL			
Less than 200 mg/dL	Desirable		
200-239 mg/dL	Borderline high		
240 mg/dL and above	High		

LDL CHOLESTEROL			
Less than 100 mg/dL	Optimal		
100-129 mg/dL	Near optimal/above optimal		
130-159 mg/dL	Borderline high		
160-189 mg/dL	High		
190 mg/dL and above	Very high		

HDL CHOLESTEROL	
Less than 40 mg/dL	Major heart disease risk factor
60 mg/dL and above	Gives some protection against heart disease



MEET YOUR HEALTHCARE TEAM

Primary care provider (PCP): A medical professional specializing in internal or family medicine, this healthcare provider may diagnose and treat your high cholesterol.

Cardiologist:
This MD
specializes in
heart disease.
Your primary
care provider
may refer you
to a cardiologist
for tests and
procedures, such
as an angiogram.

Endocrinologist:
This MD
specializes in
disease related
to hormones and
organs of the
endocrine system,
such as the liver.

Nurse
practitioner/
Physician
assistant: These
healthcare
professionals
can monitor your
cholesterol levels
and provide
ongoing care for
high cholesterol.

Registered dietitian:
This nutrition expert can help you develop a heart-healthy eating program that is low in saturated and trans fats and high in produce and lean protein.



hese days, Janell Harshbarger and her husband of 38 years, Alan, are anxiously awaiting the arrival of grandchild number six. The 58-year-old from Topeka, KS, also spends each morning with a stretch session, a walk or other form of daily movement, and enjoys playing old favorites on the piano, all while managing a busy job as an accountant and balancing the demands of living with familial cholesterolemia (FH).

Janell's health issues began when she learned she had hypothyroidism in her late 20s. Blood work at the time also revealed high cholesterol with a total count of 350 mg/dL, nearly twice what it should be. She was prescribed a statin and told to work on eating a low-fat diet.

"I took the statin, but each year at my annual visit, I would complain about issues like memory, concentration problems and fatigue. Doctors explained away these symptoms as due to aging or multitasking," recalls Janell. "The fact that my cholesterol numbers still weren't as low as they should be was attributed to me not being disciplined enough with my diet and exercise."

By age 40, Janell's cholesterol shot up again, and she wasn't responding to even high-dose statins. While accompanying her mother to an appointment to have her calcium score tested, Janell had hers done, too, for moral support. The findings surprised Janell and shocked the test administrator: Her mom's calcium score was zero, but Janell's was extremely high.

"The nurse thought she had mixed up the results." A complete cardiac workup was then ordered, which revealed Janell had advanced atherosclerotic cardiovascular disease (i.e., clogged arteries). Genetic testing was also done, revealing that Janell had FH, a genetic mutation that causes low-density lipoprotein (LDL) or "bad" cholesterol to be elevated and extremely difficult to lower.

"Even though heart issues run in my family, my dad and grandfather didn't check the early-onset boxes that normally point to FH. It was a huge moment to learn what I had and put a name to it."

"Nothing was working!"

Unfortunately, the treatment road after diagnosis wasn't as smooth as

Photos by The Grays Photography

Janell would have liked. She was prescribed several more statins, none of which worked, so she was then prescribed an injectable PCSK9 inhibitor...with the same disappointing results. After nine injections, the side effects also progressively worsened, leading the doctor to take Janell off the medication.

With these therapies exhausted, Janell switched to apheresis treatment, which mechanically removes cholesterol components from the blood and returns the cleaned blood and plasma intravenously. While it helped, it did require multihour-long sessions hooked up to a machine.

"This treatment just wasn't a long-term solution, and I felt like I was hitting a crisis point. Nothing seemed to be working, and it felt like my heart was this ticking time bomb in my chest."

"My numbers finally dropped!"

Luckily, in 2021, Janell's healthcare team told her about another PCSK9-targeting medication that works in a different way. After only two injections, her LDL dropped to a low of 79 mg/dL, and she was able to discontinue the invasive apheresis treatment.

"I couldn't believe it—after all these other failures I never expected such success," says Janell. "The goal now is to hold steady with what is working and reevaluate every three months to see if tweaks need to be made. But I feel confident in my doctors and this treatment—and that if something goes wrong, that something new is just on the horizon. Medicine can do incredible things, and I finally feel free from the burden these high cholesterol levels have been weighing on me all these years. My heart is healthier than ever!"

JANELL'S TOP HEART-HEALTHY TIPS

Ask your healthcare team if these could work for you.

Find ways to stay positive.

Janell's outlook is bright: She controls what she can control, like diet and exercise, but relies on her family, friends and strong faith to propel her through the uncertainties. "This is the most horrific yet fascinating thing I've ever been through. It has been a super isolating experience, and I absolutely do not know how I would get through my health challenges without my faith in Jesus Christ."

Don't skip on lifestyle changes.

Even though diet and exercise won't cure Janell's high cholesterol, she still prioritizes both. "Diet, exercise and lifestyle are just as crucial, even when you're on medication that's working. I am pretty strict with a low-fat diet, and I walk, swim and lift weights regularly. I just want to be as active as I can, as strong as I can, for as long as I can, and focus on making the next best decision."

Find a doctor you can connect with.

"I truly trust my cardiologist, Stephen Kopecky, MD, who works out of the Mayo Clinic in Rochester, MN. He's the expert and knows the science. My job is to know my body and how it responds. We trust each other and work together to make progress. If something's not working the way it should, I know I can keep pushing him!"

Seek support.

When Janell was first diagnosed with FH, she was referred to the patient advocacy group The Family Heart Foundation (familyheart.org). The education and support she found among the leadership and fellow FH warriors have been integral to her journey. "I would not have the empowerment, confidence and ability to manage my healthcare without them. When you're first diagnosed, it's like walking through a maze of heavy shrubs; your doctor is at the end. The Family Heart Foundation is like a helicopter that picks you up and flies you over the maze so you can see the big picture. It's much easier to navigate with their guidance." Janell has been so impacted by the organization, in fact, that she trained to become an ambassador, where she supports others affected by the disease and is involved in research, education and advocacy.

What's your heart health profile?

Fill out this worksheet then review with your doctor to learn more about your cholesterol levels and how they may be affecting your overall heart health.

Triglyceride level:

TELL YOUR CARE TEAM...

medications you're taking.

2. What OTC medications or supplements you take

3. How often you exercise, and for how long.

5. If you've experienced any major life changes recently, such as a new job, marriage, divorce, a move,

a new pet, etc.

4. How often you eat out, get takeaway or eat fast food.

1. What prescription

regularly.

			KNOW YOU	R NUMBE	RS	
Toto	ıl cholesterol:	LDL cholesterol: HDL cl		hol	esterol:	
М	ORE ABOUT YO) U & '	YOUR HEART HE	ALTH		TE
	Age:		Birth gender:	Т		1. V
a s	 Has a grandparent, parent or sibling had a heart attack or other cardiovascular event, such as stroke, especially before age 65? ☐ yes ☐ no If yes, please explain 					
lf	2. Do you smoke? ☐ yes ☐ no If you quit, describe your smoking history and note your quit date:					
lf	3. Do you have diabetes? ☐ yes ☐ no If yes, are you on medication? ☐ yes ☐ no					
	4. Do you have high blood pressure? □yes □ no If yes, are you on medication? □yes □ no					
5. Check any of the following cardiovascular events you have had: □ heart attack □ TIA □ stroke □ angina □ other						
	shortness of bred	ath	ng symptoms you ho □ chest po alking □ fatigue			
d	o you have sleep isorders?	□no	a or any other sleep	ping		
p 	theck any of the for rocedures you ha I coronary bypass I a stent procedur I surgery for circul I peripheral artery I carotid artery dis	ve had surge e ation disec	d: ery problems in the leg	s		

THE STRUGGLE TO LOWER YOUR BAD CHOLESTEROL







WHAT IS LEQVIO?

LEQVIO (inclisiran) is an injectable "bad" cholesterol.



Novartis Pharmaceuticals Corporation East Hanover, New Jersey 07936-1080

prescription medicine used along with diet and other cholesterol-lowering medicines in adults with high blood cholesterol levels called primary hyperlipidemia (including a type of high cholesterol called heterozygous familial hypercholesterolemia [HeFH]) to reduce low-density lipoprotein (LDL-C) or

IMPORTANT SAFETY INFORMATION

The most common side effects of LEQVIO were: injection site reaction (including pain, redness, and rash), joint pain, and chest cold.

These are not all the possible side effects of LEQVIO. Ask your health care provider for medical advice about side effects. You are encouraged to report negative side effects of prescription drugs to the FDA. Visit www.fda.gov/medwatch, or call 1-800-FDA-1088.

Brief Summary of Prescribing Information on adjacent page.



*For commercially insured patients. Limitations apply

Scan this QR code or go to:

LEQVIO.com/cost to see how you can afford LEQVIO.

BRIEF SUMMARY OF FULL PRESCRIBING INFORMATION LEQVIO® (INCLISIRAN) INJECTION, FOR SUBCUTANEOUS USE

What is LEQVIO?

LEQVIO is an injectable prescription medicine used along with diet and other lipid-lowering medicines in adults with high blood cholesterol levels called primary hyperlipidemia (including a type of high cholesterol called heterozygous familial hypercholesterolemia) to reduce low density lipoprotein (LDL) or bad cholesterol.

It is not known if LEQVIO is safe and effective in children under 18 years of age.

Before you start taking LEQVIO, tell your health care provider about all your medical conditions, including if you:

- are pregnant. Tell your health care provider right away if you become pregnant while taking LEQVIO. You and your health care provider will decide if you should take LEQVIO while you are pregnant.
- are breastfeeding or plan to breastfeed. It is not known if LEQVIO passes into your breast milk. You and your health care provider should decide if you will take LEQVIO or breastfeed.

Tell your health care provider about all the medicines you take, including prescription and over-the-counter medicines, vitamins, and herbal supplements.

Know the medicines you take. Keep a list of them to show your health care provider and pharmacist when you get a new medicine.

How should I take LEQVIO?

LEQVIO is an injection under the skin (subcutaneous), given by your health care provider, initially, again at 3 months, and then every 6 months (twice yearly).

What are possible side effects of LEQVIO?

The most common side effects of LEQVIO include injection site reaction (including pain, redness, and rash), joint pain, and chest cold.

These are not all the possible side effects of LEQVIO. Call your health care provider for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088.

General information about the safe and effective use of LEQVIO.

Medicines are sometimes prescribed for purposes other than indicated. Do not use LEQVIO for a condition for which it was not prescribed.

This Patient Information leaflet summarizes the most important information about LEQVIO. If you would like more information, talk with your doctor. You can ask your doctor or pharmacist for information about LEQVIO that is written for health professionals.

For more information, go to www.LEQVIO.com or call 1-833-LEQVIO2 (1-833-537-8462).

What are the ingredients in LEQVIO?

- active ingredient: inclisiran sodium
- inactive ingredients: water for injection, sodium hydroxide and/or phosphoric acid

TRUE INSPIRATION

"GETTING DIAGNOSED SAVED OUR LIVES!"

The road to figuring out the cause of their stubbornly high cholesterol levels was long for Brandon and Gail—and led to some serious health issues. Finding out they had familial hypercholesterolemia (FH), a genetic disorder that keeps cholesterol levels high, made all the difference. Today, they are using their experiences to educate others. Read on to learn how they're thriving—and ask your healthcare team if their tips could work for you, too. —BY DANIELLE TUCKER

"Knowledge is power!"

FORT WALTON
BEACH, FL

Brandon Wilson was devastated when, at age 7, he lost his dad to a heart attack. His father was only 39, and he wasn't the only family member to succumb to heart disease at an early age: Brandon's grandfather and uncles all passed by age 35, and his half-brother by 48. "I remember

my dad being in the hospital a lot. He suffered multiple heart attacks and strokes and had open heart surgery twice. He couldn't play with me like other dads," Brandon recalls.

Shortly after his father's death, 8-year-old Brandon learned he had high cholesterol. "I was told my body overproduced cholesterol, which ran in the family, but they didn't put a name to the condition, and the only 'treatment' they suggested was that I needed to watch what I ate." When Brandon began having chest pains in his early 20s, he saw a doctor. Despite early heart issues running in his family, doctors dismissed his concerns. "I would go to the ER, and they would send me home and tell me I was too young to worry."

In February 2015, Brandon would suffer and survive his first heart attack—a widow-maker. Three more

heart attacks, a quadruple heart bypass, and a total of seven cardiac stents followed over the next few years, all before Brandon turned 39. It wasn't until he and his wife, Jamie, searched the internet for answers and stumbled upon The Family Heart Foundation (familyheart.org) that he would have a name for his condition: familial hypercholesterolemia (FH). "The Family Heart Foundation has been the cornerstone of my healthcare, without them I wouldn't have found my way to a treatment that targets those with FH and that's finally helping control my cholesterol. They gave me the encouragement, confidence and education to ask for second opinions. They also told me about another genetic marker for heart disease risk, called Lp(a). I got tested, and I have high levels of that, too-knowledge is power!"

Continued on next page ▶







Here, Brandon shares the other things he's learned after a lifetime of living with high cholesterol.

Educate yourself.

A former chef, Brandon's insurance coverage would come and go depending on his job status. Even though he started taking statins in his 20s, they never seemed to make much of a dent, so when he had to stop taking them due to insurance gaps, it never concerned him much. "If Brandon had been educated about FH from the beginning, he would have taken his medication more seriously and when treatments for people with FH came on the market, he could have started them right away and prevented some of his heart attacks and suffering," laments Jamie. "He didn't get consistent treatment until his 30s. That's too late—things had already snowballed!"

Start conversations.

"Saving lives is my daily job now," says Brandon. "FH has taken so much from me. No 7-year-old should lose their dad. Parents shouldn't bury their children. That's why today I'll talk to anyone who will listen about FH. Even in the grocery checkout line I might turn around to the person behind me and say, 'Hey, how's your cholesterol? Do you know your numbers? Want to hear about mine?' FH affects 1 in 250 people. That means you know someone who has this—and they might not even know themselves."

Push for change.

Brandon's oldest son tested negative for FH, but his 4-year-old daughter was diagnosed before age 2, and his 5-year-old son has elevated Lp(a). So Brandon and Jamie started the Facebook page *Runs in the Family - Wilson Hearts* to document their journey and raise awareness. "The fight is personal. We wanted a platform to educate about this invisible disease. People look at me and think, 'He's in good shape. He doesn't look sick.' Our goal is to make it click. You could have it. Your kids could have it. Ours do—get tested! We're trying to save their lives and prevent them from going through the same things I have."





At the age of 58, Gail Titus suffered a retinal artery occlusion (aka, an eye stroke). That's how old her father was when he suffered a fatal heart attack. Other than a high LDL cholesterol number of 199 mg/dL, doctors couldn't find a definitive cause for the stroke. "They said regardless of what caused it, the treatment would be the same: a statin to try to lower my LDLs and 81 mg of aspirin to prevent future clots."

A decade earlier, Gail had discovered she had elevated Lp(a), a genetic cardiovascular marker, after a cousin was diagnosed with the same thing after experiencing peripartum cardiomyopathy. "I remembered my cousin saying she had been treated at the University of Pennsylvania Department of Preventive Cardiology, so after my retinal occlusion, I decided to seek treatment there. That's where they clinically diagnosed me with familial hypercholesterolemia, and I was finally started on a treatment plan that targeted the genetic issues causing my heart problems, rather than the treatments given to 'everyone else.'"

Here, Gail shares the other tips

she picked up while navigating her heart health journey.

Stay the course.

The first-line treatment for FH is still statin medications, but like many others with the condition, Gail's levels didn't respond to them significantlyand she couldn't tolerate the side effects. "After the fourth try on a different statin, my lipidologist declared me 'statin intolerant.' That's when I tried PCSK9 inhibitors, but again, my systemwould not tolerate them-I seemed to have almost an allergic reaction to them. I just can't take the medicines long enough to find out if they work." Gail and her treatment team didn't give up, though, and their persistence is paying off. "I've since taken three shots of a new medication that's designed to silence the PCSK9 gene-soit's directed at the same enzyme associated with FH, but works in a different way. I am happy to report no noticeable side effects so far, and my LDL is down to 112, which is the lowest it's been. We're still working to get it down to my safe zone goal of 70, but other markers are trending in the right direction, too."

Embrace support.

"The day I visited the University of Pennsylvania for the first time, there was a researcher from The Family Health Foundation. We had a 15-minute conversation; he told me to visit familyheart.org and the rest is history. I watched their informative webinars-their educational resources are jewels. Ninety days later, I was at their Family Heart Summit and connected with many others walking the same road. Now, I serve as an ambassador and help spread the word about genetically inherited diseases, participate in research studies, and offer support to others."

Build a team.

"You can't take on a heart disease like FH alone," implores Gail, who admits she spent years after first finding out she had high cholesterol convinced she could "beat it" through being disciplined with diet and exercise. "Then I had the eye stroke and realized I needed to take this issue more seriously. Today, Gail works with a healthcare team that includes her primary care doctor, a

functional medicine doctor (doctors who specialize in finding the

my number one support system!"

says Gail.

root cause of illness and personalizing treatment), an ophthalmologist, a retinal specialist, a lipidologist, a vascular neurologist and a cardiologist. "They're my dream team—and they're committed to working with me to find treatments that will keep my heart healthy as long as possible."

Health m Monitor

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STUCK IN A RUT! I have had high cholesterol for about two years. I take my statin religiously and work out most days a week. I've even lost about 8 pounds. But still my cholesterol is around 250 mg/ dL! What are my options?



Answers to your questions about high cholesterol **A:** Statin therapy and brisk exercise have been proven to help lower cholesterol, triglycerides (blood fats) and risk of heart disease; however, they are part of a larger set of tools that can be used. One component you may be overlooking? Diet. An eating plan focused on reduced saturated fats and salt along with eating more fruits, vegetables and whole grains has been shown to reduce LDL cholesterol by up to 30% in some people! If you are unsure how to improve your diet after talking to your physician, you should consider seeing a dietitian.

As for medication, there are several options that you should discuss with your healthcare provider. Today, there are other medications in addition to statins that have been proven to help reduce LDL-cholesterol. Most notable are ezetimibe, bempedoic acid, inclisiran and PCSK9 inhibitors, which may be especially helpful if you have familial hypercholesterolemia (FH). Affecting l in 250 Americans, FH is a genetic condition that causes high cholesterol levels, especially high levels of LDL cholesterol. Ask your healthcare provider if FH may be an issue for you and if you are a candidate for these medications.

HDL VS LDL

Q: I'm on medication and am reasonably healthy otherwise, except for about 15 extra pounds. My question is this: My HDLs (good cholesterol) are nice and high-around 80-but my LDLs (bad cholesterol) are around 120. Do my HDLs "cancel out" my LDLs? A: HDL and LDL are often referred to as "good" and "bad" cholesterol; however, these descriptions oversimplify their contribution to a person's risk for heart disease. LDL gets its label because it's associated with negative cardiovascular outcomes, while HDL is associated with better outcomes.

HDL and LDL do have some opposite effects in relation to the development of atherosclerosis (buildup of fatty plaques on blood vessel walls). For example, while LDL causes inflammation and other factors that promote the development of atherosclerosis, HDL protects against atherosclerosis by preventing the buildup of excess cholesterol on vessel walls. Even so, high HDLs cannot reverse the dangers of elevated levels of LDL. In fact, many studies show that HDL works best when LDLs are well controlled.

Overall, your goal should be to maintain low LDL levels as recommended by your cardiologist. In addition to taking any prescribed medication, you can also help lower your heart disease risk by exercising, eating a balanced diet and achieving a healthy weight.

OUR EXPERT:

Roger S. Blumenthal, MD

The Kenneth Jay Pollin Professor of Cardiology and Director, The Ciccarone Center for the Prevention of Heart Disease

Overcome top challenges to eating better

Besides taking medication, sticking to a heart-healthy diet can be one of the most important things you can do to help manage high cholesterol levels. In fact, some people can lower their numbers by 20% or more just by changing up their diet a little! But eating healthy can often be easier said than done. Here, we've put together the most common issues people say they face when trying to stick to a healthier diet—and the expert tricks for overcoming them. -BY RIKKI ECCLES



Challenge: Fresh fruits and vegetables cost a fortune!

► Solution: "Look for canned and dried whole foods, like vegetables, beans and rice, that you can purchase in bulk," suggests Steven Winiarski, DO, a clinical lipidologist and founder of The Cholesterol Doctors (cholesteroldoctors.com). "These can be great staples to keep on hand to form the basis of

healthy meals, and they are very budget friendly." When it comes to canned vegetables, look for ones labeled "no salt added," and with fruit, "no sugar added"these can be cooked into recipes the same as fresh and offer the same nutrients.

Challenge: My family's meals include foods like butter, wholefat cheeses, red meat, etc.

► Solution: Replace—don't remove! "This issue is twofold," Dr. Winiarski explains. "First, family recipes are steeped in tradition and help build memories as a family. Second, cutting out foods you love entirely simply doesn't work." In fact, Psychology Today reports that diets where people are told not to eat certain foods increases overeating of that food by 133%! Instead, Dr. Winiarski recommends substituting the high-cholesterol ingredients in those dishes with healthier swaps—so olive oil instead of butter or lard; chicken in place of red meat; a reduced- or lowfat cheese instead of the full-fat variety. "You can also change

cooking methods—many people are surprised how tasty broiling or baking something that is traditionally deep-fried, like chicken, can be."

Challenge: It's too hard to avoid my favorite foods at parties.

► **Solution:** In this case, says Dr. Winiarski, the key is to focus on quantity. "Again, you don't want to avoid eating things you enjoy just don't fill your plate with them. Take a scoop of mac n' cheese and a piece of brownie! Just be sure to fill most of your plate with, say, some salad or fresh fruit." It can also help to eat a healthy snack like a cup of vegetable soup, or a handful of nuts-before you go to a social situation so that you are less hungry while there."

Challenge: I don't have time to cook most nights.

► **Solution:** Food prepping is a great way to make sure you stick to a heart-healthy diet when working long hours makes it hard to cook a meal. Dr. Winiarski recommends choosing "one day where you can prep all your meals for the upcoming week. By doing this, you can eliminate the temptation for fast food or takeout. While this does take more preparation time upfront, it will really up the odds of your sticking to your plan—and as a bonus, you'll probably wind up saving money." Another thing: Meal prepping doesn't have to take hours—for example, roasting a lot of your favorite veggies takes only one pan, and can be used for a few different meals throughout the week.

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Find out how fit you are without the scale!

A whopping 73% of people who set fitness goals give them up within a

year, in many cases discouraged when they fail to lose weight, according to the journal *Obesity Reviews*. But getting regular physical activity is one of the most important things you can do for heart health—and has many benefits you might not "see" at first glance. Here, we highlight other ways you can measure how exercise is impacting your health—so you can stay motivated and keep your heart pumping strong for years to come!

—BY DANIELLE TUCKER

While you already know that regular physical activity can improve your health, you may not realize how many aspects it can impact.

"Working out strengthens your bones, joints, muscles and even organs like your lungs, heart and brain," says Brent Wakefield, PhD, instructor of Functional Anatomy at Western University in Ontario Canada, and founder of *Exercisescience.ca*. "It reduces bodywide inflammation, and produces feel-good hormones that will improve your mood and increase your energy levels. It also helps you sleep more soundly. Simply put, exercise adds to the body in a multitude of ways, and that's a powerful mindset!"

So, are you ready to throw out the scale? Terrific! Here are a few ways to monitor your fitness victories and fire up your motivation—regardless of your weight:

1.

Track your heart numbers.

When it comes to cardiovascular fitness, start by looking at changes in your heart rate, blood pressure and blood fats—i.e., cholesterol and triglycerides—over time. Heart rate will start to change relatively quickly, within a couple weeks. Blood pressure, cholesterol and triglyceride levels usually respond after a few months. Keep a record of your numbers and you'll see ironclad evidence of how working out is improving your heart health and making you stronger, suggests Wakefield.

Pay attention to strength gains.

As you continue to work out consistently, your muscles will also reward you by growing strongerironically, this can be one reason you may not see a change on the scale, since muscle weighs more than fat, advises Hayden Setser, certified personal trainer and owner/head coach of Crossfit Mephobia in Fultondale, AL. "That's why you need to pay attention to other cues that you're getting stronger," she says. "If you lift weights-say 10 lbs. doing biceps curls-see if you can do the same number of reps with a 12-lb. weight the next week. If you can only run for one minute without stopping this week, see if you can run two the next. If you can hold a plank for 30 seconds, try 40." A great way to keep track can be to log your reps and weights in a journal, or in a

note on your smartphone. You can also track gains via everyday tasks, adds certified personal trainer and Thyme for Fitness group fitness instructor Charlotte Morehouse of Evans, GA. "Look at things like carrying heavy groceries, climbing the stairs at work or walking that hill behind your house—are they easier than they used to be? Are you no longer getting out of breath after a few seconds? Those are signs you're healthier and stronger!"

Try a 30-second test.

Muscle strength is an important aspect of fitness, but so is power, which basically refers to your ability to exert force quicklythings like lifting up your grandkid, hoisting that big bag of kitty litter or catching yourself before a fall. The simplest way to test your power level is the sit-and-stand test: Sit in a straight chair with no arm rests, feet flat on the floor. In 30 seconds, count how many times you can stand up and sit down again without using your hands or arms to help you. Over time, with regular exercise, that number will increase.

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Snap some photos.

Taking pictures as you track exercise goals will uncover physical changes that the scale cannot, including increased muscle definition, a slimmer waist and how your clothes fit. The key to effective photos: Take them at the same time of day, in the same location, under the same lighting and wearing the same outfit. And don't be shy! In one study, participants who shared their progress photos on social media were more likely to stick to their new routines, says a study published in Translational Behavioral Medicine.

5.

Get measured.

Similar to photos, measuring the circumference of your waist can clearly show when you're improving your fitness. On average for men, you want to aim for a waist circumference 37 inches or less; for women, 32 inches or less, but check with your healthcare provider to find the ideal number for you, since factors like height and race can come into play for some people.



Looking for ways to assess your fitness online?

Check out the American Council on Exercise-approved assessments at *exrx.net/Testing*, which can help you track everything from your heart health numbers, to how many sit-ups and push-ups you can do to how long and far you can run.

Health Monitor



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Livi		registered dietitian?	delivery	
Question at today			Are there any lifestyle changes you recommend?	
Do my test results show that my current cholesterol treatment is working?	Are you satisfied with the results or do you think I could achieve better results?	What do my current numbers indicate about my risk for heart attack and stroke?		
ν .			When should I see you again for a follow-up appointment?	
	Do you think I may have a cholesterol?			
What could be the reason my LDLs are				
still high even though I exercise, eat right and take my statin as prescribed?	Could I benefit from another or additional medication?	Are there any side effects I should watch out for?	On treatment and need help covering the cost? Ask your healthcare provider about patient assistance programs or call the manufacturer of the treatment you have been prescribed. Many pharmaceutical companies offer copay assistance programs that can make treatment more affordable.	