



Heart and Gut Health Digest

ISSUE #4

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Dear Readers,

As we wrap up another incredible year, it fills us with immense pride to present the fourth issue of the Heart & Gut Health Digest. This year has been a journey of growth, innovation, and connection, and we owe it all to your unwavering support and engagement. From launching initiatives that educate and empower our community to delivering content that bridges the gap between complex medical knowledge and practical advice, we've been inspired by your enthusiasm to lead healthier, more informed lives. Your trust motivates us to strive for excellence in every issue. Looking ahead, we're thrilled to share that 2025 will mark the launch of our **YouTube channel, HG Cardiowise**. This platform will bring you expert insights on heart health, engaging video content, and actionable tips to support your journey toward better health. As always, we remain committed to making a positive impact in your health journey. Thank you for being an integral part of our community. Here's to a new year filled with growth, learning, and healthier hearts and guts!

With warm wishes and gratitude,

Dr Aneya Avenkar & Dr Manata Avenkar

The Post-COVID Heart: What We've Learned So Far

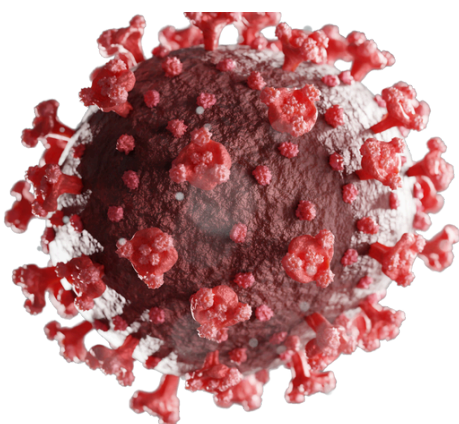
The COVID-19 pandemic has left a profound impact on healthcare worldwide, particularly on cardiovascular health. In India, where heart disease is already the leading cause of mortality, the lingering effects of COVID-19 on the heart have added a new dimension to this challenge. Here's what we've learned so far

COVID-19 and the Heart

Early in the pandemic, doctors noticed that COVID-19 affected more than just the lungs. Many patients—especially those with severe infections—developed cardiovascular complications, ranging from myocarditis (inflammation of the heart) to heart attacks and abnormal clotting events.

How Does COVID-19 Affect the Heart?

- **Direct Viral Attack:** The virus enters cells via ACE2 receptors, which are present in the heart and blood vessels. This can lead to inflammation and damage.
- **Cytokine Storm:** A severe inflammatory response triggered by COVID-19 can injure the heart and other organs.
- **Increased Clotting Risks:** COVID-19 alters the body's clotting system, increasing the risk of heart attacks, strokes, and pulmonary embolism.



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The Numbers Speak: COVID-19 and Cardiovascular Risks in India

Research has provided alarming insights into the intersection of COVID-19 and heart health:

- **Post-COVID Heart Complications:** A study by AIIMS, New Delhi, found that nearly 28% of hospitalized COVID-19 patients experienced heart-related issues.
- **Rising Heart Attack Rates:** The Indian Heart Association noted a 20% increase in heart attacks among individuals under 40 during the pandemic, with COVID-19 suspected to play a role in triggering inflammation.
- **Vaccination Matters:** Vaccinated individuals have a lower risk of severe COVID-19 and its cardiovascular complications. **It is COVID that triggers heart attacks, not vaccines.**

Case Study: Ravi Sharma's Story

Ravi Sharma, a 45-year-old businessman from Mumbai, recovered from mild COVID-19 in 2022. A month later, he experienced chest pain while jogging. Diagnosed with a heart attack, Ravi was shocked.

- **The Trigger:** Doctors found that inflammation caused by COVID-19 likely destabilized existing plaque in his coronary arteries, leading to the heart attack.
- **Outcome:** After treatment and lifestyle changes, Ravi's health improved, but his case highlights the potential for delayed cardiovascular events post-COVID.

Is Post-COVID Heart Disease a Myth?

The connection between COVID-19 and heart health is real, but it's nuanced. Here's what we know:

- **Not Every Heart Issue is COVID-Related:** Some heart attacks post-COVID are due to underlying risk factors like diabetes or hypertension, which the virus may exacerbate.
- **COVID-19 as a "Second Hit":** For individuals already at risk, the virus can act as a catalyst, accelerating processes like plaque rupture or clot formation.
- **Scientific Evidence:** A Nature Medicine study found that even a year after recovery, COVID-19 survivors had a 63% higher risk of heart attacks and 52% higher risk of stroke than non-infected individuals.

Three Years Post-Pandemic: Should We Still Be Concerned?

As we approach the fourth year since the emergence of COVID-19, many people wonder whether post-COVID heart concerns are still relevant. Here's why they are:

- **Long COVID Is Real:** Studies show that 10-20% of individuals recovering from COVID-19 experience lingering symptoms, including heart palpitations, chest pain, and fatigue.
- **Delayed Effects:** For some, cardiovascular issues may emerge months or even years later, making it vital to remain vigilant.
- **A Silent Epidemic:** India faces a dual burden of rising cardiovascular disease and long-term COVID-19 complications. With over 4 crore confirmed COVID-19 cases in India, even a small percentage developing heart issues represents a significant public health challenge.

Take-Home Message

COVID-19 may no longer dominate headlines, but its impact on the heart persists. The Indian demographic, with its high prevalence of diabetes and hypertension, remains particularly vulnerable to post-COVID complications.

If you've recovered from COVID-19, it's wise to:

- **Watch for Symptoms:** Chest pain, palpitations, or breathlessness should never be ignored.
- **Get Regular Checkups:** Especially if you had moderate or severe COVID-19, a post-recovery heart evaluation is crucial.
- **Adopt a Heart-Healthy Lifestyle:** Balanced nutrition, regular exercise, and stress management can significantly lower your risk.

As Mr. Ravi Sharma puts it, "COVID-19 was a wake-up call for me. I've changed my lifestyle, and I feel better than I did before the pandemic."



Gallstones Demystified: When Should You Worry?



Gallstones, often perceived as a health alarm, are a surprisingly common condition. These small, pebble-like deposits form in the gallbladder—a small organ beneath the liver that aids digestion. But do all gallstones require immediate surgery, or can they sometimes be left alone? Let's separate myths from facts and explore when it's time to worry.

What Are Gallstones?

Gallstones are hardened deposits of digestive fluids, mainly cholesterol or bile pigments. They vary in size, from as small as a grain of sand to as large as a golf ball.

Types of Gallstones:

- **Cholesterol Stones:** The most common type, often linked to obesity, high-fat diets, or rapid weight loss.
- **Pigment Stones:** Made of bilirubin, more common in individuals with liver disease or blood disorders.



Prevalence in India:

Gallstones affect 6-9% of adults in urban areas, with increasing prevalence due to dietary habits, obesity, and sedentary lifestyles. Women, particularly those over 40 and those who have had multiple pregnancies, are at higher risk.

Not All Gallstones Are a Cause for Alarm

A key fact many people don't know is that most gallstones are silent—they cause no symptoms and are discovered incidentally during imaging tests for unrelated issues.

When You Don't Need Surgery:

- If gallstones are asymptomatic, they often don't require intervention.
- Many people live their entire lives with gallstones without any problems.
- Regular monitoring and lifestyle adjustments can help manage these cases.

When to Consult a Doctor:

Symptoms like the following may signal gallstones are causing trouble:

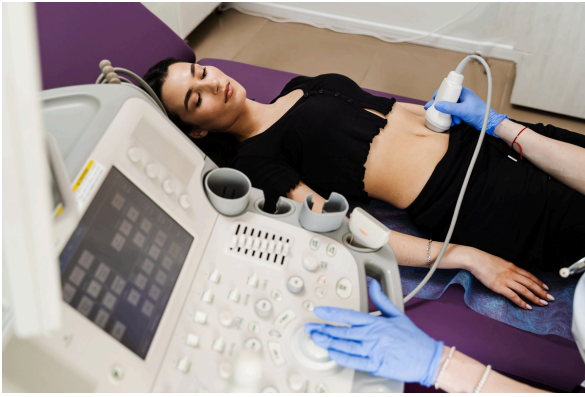
- **Pain in the Upper Right Abdomen:** Particularly after fatty meals, indicating biliary colic.
- **Nausea and Vomiting:** Persistent digestive discomfort.
- **Jaundice or Dark Urine:** Signs that gallstones might be obstructing bile flow.
- **Fever with Chills:** Could indicate infection (cholecystitis) requiring urgent medical attention.



Why Consulting a Gastroenterologist Matters

A common misconception is that gallstones always require removal of the gallbladder. However, consulting a gastroenterologist is essential to determine the best course of action.

- **Individualized Assessment:** Specialists use imaging tests (like ultrasound or MRCP) to evaluate the size, location, and impact of gallstones.
- **Non-Surgical Options:** In select cases, medications or dietary changes can manage symptoms without surgery.

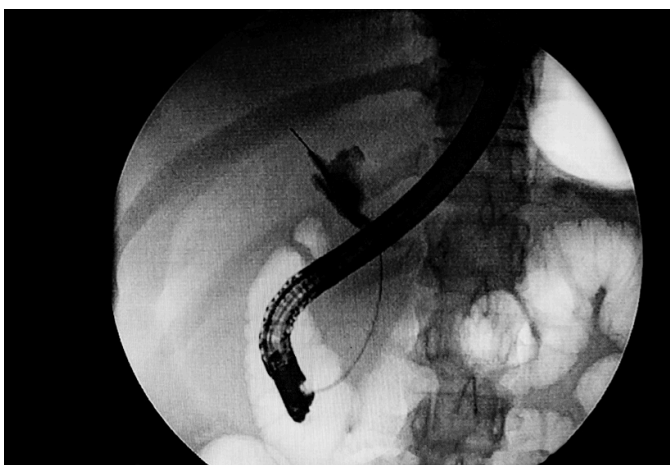


- **Surgery Only When Necessary:** Cholecystectomy (gallbladder removal) is recommended only for symptomatic gallstones or complications like cholecystitis, pancreatitis, or biliary obstruction.

Case Study: Silent Stones vs. Active Symptoms

Meena Rathod, a 48-year-old schoolteacher, underwent an ultrasound for abdominal discomfort and was found to have small gallstones. Though initially alarmed, her gastroenterologist explained that the stones were not causing her pain and suggested lifestyle changes. Six months later, she remains symptom-free and avoided unnecessary surgery.

In contrast, *Rajesh Patel*, a 40-year-old IT professional experienced severe abdominal pain and fever. Tests revealed that his gallstones were obstructing bile flow, causing infection. He underwent an endoscopic procedure to clear the bile duct of stones and relieve obstruction. This procedure is called **ERCP (Endoscopic Retrograde Cholangiopancreatography)** with stenting of the bile duct, performed by an Gastroenterologist. Months later he underwent laparoscopic surgery, which resolved the issue with a quick recovery.



These cases highlight the importance of understanding gallstone indications and seeking expert advice.

Managing Gallstones:

These are some practical tips for managing gallstones

Dietary Adjustments:

- Reduce intake of fatty and fried foods.
- Incorporate fiber-rich foods, like fruits, vegetables, and whole grains.

Maintain a Healthy Weight:

- Obesity is a major risk factor. Aim for gradual, sustainable weight loss if overweight.

Stay Active:

- Regular physical activity can reduce the risk of gallstone formation.

Hydration Matters:

- Drink plenty of water to promote healthy bile production.

Final Thoughts: Awareness is Key

Gallstones, while common, don't always spell trouble. Understanding the symptoms and consulting a gastroenterologist can help you make informed decisions. Unnecessary surgeries can often be avoided with the right advice, while timely intervention for symptomatic cases ensures better outcomes.

If you've been diagnosed with gallstones or suspect symptoms, don't panic. The key is to seek medical advice and tailor your approach to your unique health needs. Your gallbladder—and your peace of mind—will thank you.



HG CardioWise
WITH DR. AMONKAR

Dobutamine Stress Echo (DSE)

A Dobutamine Stress Echo (DSE) combines dobutamine, a medication that simulates exercise, with an echocardiogram to assess heart function under stress. It's particularly useful for patients who can't undergo a traditional exercise stress test due to physical limitations

What does the test show?

The images captured during the Dobutamine Stress Echo help doctors assess:

1. **Heart Wall Motion:** The test shows how well the heart's walls move at rest and during stress
2. **Heart Pumping Function:** The echocardiogram can measure the heart's ejection fraction (EF), which indicates how well the heart is pumping blood. A reduced EF may signal weakened heart muscle.
3. **Stress-Induced Ischemia:** If certain areas of the heart muscle don't move properly during stress, this suggests ischemia, a condition where the heart muscle isn't receiving enough oxygenated blood, often due to blockages.
4. **Detection of Heart Valve Problems:** The test can also help detect problems with heart valves, such as regurgitation (leakage) or stenosis (narrowing)



Who needs a DSE?

DSE is recommended for:

1. **Suspected Coronary Artery Disease (CAD):** For patients experiencing symptoms like chest pain or breathlessness.
2. **Previous Heart Attack:** To evaluate heart muscle function.

3. **Assessment of Heart Valves:** Detects abnormalities in valve function under stress.

4. **Patients Unable to Exercise:** For those with arthritis, obesity, or other physical limitations.

5. **Before Major Surgery:** Ensures the heart can withstand surgery or anesthesia, especially in patient undergoing knee replacement surgery

6. **High-Risk Patients:** Individuals with diabetes, hypertension, or a family history of heart disease.

What Happens During a DSE?

Preparation

- The patient lies down, and electrodes are attached to the chest to monitor the heart.
- A small IV is inserted into the arm to administer dobutamine.

During the Test:

- Dobutamine is gradually infused, increasing the heart rate to mimic exercise.
- The doctor uses an ultrasound probe to capture real-time images of your heart.
- At times, an ultrasound contrast may be injected into the arm vein for better imaging of the heart

Completion:

The heart is monitored until it returns to its resting state after stopping the medication.

Duration:

The entire process typically takes 30-45 minutes.

Is DSE safe?

A DSE is generally safe, and serious complications are rare. The test is non-invasive, and since it doesn't require radiation (like a nuclear stress test), it's a safer option for many patients. However, as with any medical procedure, there are potential risks, particularly in patients with certain conditions like uncontrolled hypertension or arrhythmias.

A Dobutamine Stress Echo is a valuable tool in diagnosing coronary artery disease and assessing heart function, especially for patients who cannot undergo traditional exercise stress tests. By mimicking exercise with dobutamine, this test provides doctors with important information about heart health, helping guide treatment decisions for patients at risk of heart disease. If you have symptoms like chest pain or shortness of breath, consult your doctor to see if a Dobutamine Stress Echo is right for you.

Q I have heart disease and I'm planning a flight. Is it safe to travel by plane?

A Flying is generally safe for most people with heart disease, but there are a few important factors to consider. The reduced oxygen levels in an airplane cabin, along with the potential for blood clots (deep vein thrombosis or DVT), can pose risks for those with certain heart conditions, especially during long flights. Stress, fatigue, and jet lag from travel can also trigger heart issues.

Who Can Fly Safely?

- Most individuals with stable heart disease, such as controlled angina or a history of a heart attack, can fly without issues.
- If you've had a recent heart procedure, such as angioplasty or bypass surgery, consult your doctor. Generally, it's safe to fly after 2 weeks for angioplasty and 4-6 weeks for bypass surgery if there are no complications.

Who Should Avoid Flying?

- Patients with uncontrolled heart failure, unstable angina, or recent heart attacks (<2 weeks).
- Those requiring oxygen therapy or experiencing severe symptoms like breathlessness or chest pain.

Before traveling, consult your cardiologist to determine if it's safe for you to fly. If you're cleared to travel, here are some tips to help make your journey safe:

1. **Bring Your Medications:** Pack enough for your entire trip, plus extras in case of delays. Always carry them in your hand luggage.
2. **Stay Hydrated:** Drink plenty of water throughout the flight unless specifically advised to restrict fluid. Avoid alcohol and caffeine, as they can dehydrate you and strain your heart.
3. **Move Around:** Get up and walk every 1-2 hours to improve

circulation and reduce the risk of DVT. If you can't walk, do leg stretches and foot exercises in your seat. Compression stockings can also help

4. **Monitor Symptoms:** Be alert to signs like chest pain, dizziness, or shortness of breath. If these occur, let the flight crew know immediately—they're trained to handle medical emergencies.

In most cases, with proper precautions, flying is safe for heart disease patients. Be sure to consult your cardiologist, prepare ahead, and enjoy your trip with peace of mind!



Dr. Ameya Amonkar

MD, DM (Cardiology), FACC
Consultant Cardiologist

PRACTICAL TIPS FOR A HAPPY GUT

Practical tips for managing constipation

Constipation can be uncomfortable but is often manageable with a few lifestyle adjustments. Here are compact, practical tips to keep your digestive system on track:

1. **Eat More Fiber:** Include fiber-rich foods like fruits (apples, pears), vegetables, whole grains, and legumes. Aim for 25–30 grams daily. Increase intake gradually to avoid bloating.
2. **Stay Hydrated:** Drink 6–8 glasses of water daily. Warm beverages, especially in the morning, can help stimulate bowel movements.
3. **Get Moving:** Regular exercise, like walking or yoga, promotes healthy digestion. Just 20–30 minutes daily can improve bowel motility.
4. **Establish a Routine:** Set aside time for bathroom visits, preferably after meals. Consistency helps train your body.
5. **Don't Ignore the Urge:** When you feel the need to go, don't delay. Holding it in can make stool harder and more difficult to pass.
6. **Natural Remedies:** Prunes or Prune Juice: A natural laxative. Flaxseeds: A tablespoon in water or yogurt can help.



7. **Watch Medications:** Certain medications like painkillers or iron supplements can cause constipation. Discuss alternatives with your doctor if needed.

8. **When to See a Doctor:** If constipation persists despite these tips or is accompanied by severe pain, blood in stools, or weight loss, consult a doctor promptly.



2025

THE WELLNESS PLATE

Sweet Potato and Carrot Soup

(A heart-healthy and gut-friendly soup, perfect for winter nights!)

Ingredients:

- Ingredients (Serves 4-6):
- 2 medium sweet potatoes, peeled and diced
- 3 medium carrots, peeled and diced
- 1 medium onion, finely chopped
- 4 garlic cloves, minced
- 1 tbsp olive oil
- 1/2 tsp turmeric powder
- 1/2 tsp ground cinnamon
- 1/4 tsp ground nutmeg (optional)
- 1/4 tsp black pepper
- 4 cups low-sodium vegetable stock or water
- 1/2 cup light coconut milk (optional)
- Juice of half a lemon
- Salt to taste
- Pumpkin seeds (for garnish)
- Fresh parsley or cilantro (for garnish)



Instructions:

- **Sauté Aromatics:** Heat olive oil in a large pot over medium heat. Add the chopped onion and minced garlic, and sauté for 2-3 minutes until fragrant and translucent.
- **Cook Vegetables with Spices:** Add the diced sweet potatoes and carrots to the pot. Stir well. Sprinkle in the turmeric, cinnamon, nutmeg (optional), and black pepper. Mix to coat the vegetables evenly with spices.
- **Simmer the Soup:** Pour in the vegetable stock or water. Stir and bring the mixture to a boil. Reduce the heat to low, cover the pot, and let it simmer for 20-25 minutes, stirring occasionally, until the sweet potatoes and carrots are very soft.
- **Blend the Soup:** Use an immersion blender to puree the soup directly in the pot until smooth. If you prefer, transfer the soup to a blender and blend in batches, then return it to the pot. Stir in the coconut milk (if using) and adjust the consistency with a little extra stock or water if needed.
- **Season and Finish:** Squeeze in the juice of half a lemon and adjust the salt to taste.
- **Serve:** Ladle the soup into bowls and garnish with pumpkin seeds, fresh parsley or cilantro.

Health Benefits:

- **Heart Health:** Rich in antioxidants like beta-carotene and spices like turmeric, which help reduce inflammation.
- **Gut Health:** High in fiber and gentle on the stomach.
- **Diabetes-Friendly:** Moderate GI when eaten in controlled portions and without added sugar.

The Blood Pressure Super Pill: A Game-Changer in Hypertension Management

High blood pressure, a leading cause of heart disease and stroke, affects millions worldwide. Despite the availability of effective treatments, many patients struggle with medication adherence, often due to the complexity of managing multiple drugs. A recent innovation, dubbed the “super pill,” is set to change this landscape. Developed by researchers at the George Institute for Global Health, the super pill combines four blood pressure-lowering medications at low doses into a single tablet. This approach not only simplifies treatment but also enhances its effectiveness. By combining medications with complementary mechanisms of action, the super pill achieves better blood pressure control with fewer side effects.

A pivotal study published in *The Lancet* demonstrated the super pill's efficacy. In a trial involving over 18,000 patients across multiple countries, individuals taking the super pill were 50% more likely to achieve target blood pressure levels compared to those on standard care. The medication also showed promise in reducing cardiovascular events like heart attacks and strokes. Improved Adherence, Global Reach and Potential to Save Lives is what makes it valuable.

While the super pill is a breakthrough, its availability and integration into clinical practice will require collaboration

between healthcare providers, policymakers, and pharmaceutical companies.

Reference: Webster R, Rodgers A, Patel A. Fixed-dose combination therapy for hypertension: The SUPERB trial. *Lancet*. 2024;402(10125):1501-1510



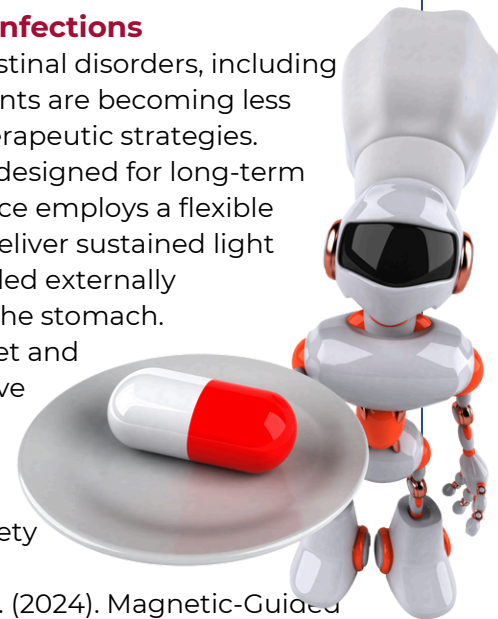
Innovative Robotic Approach for Treating Helicobacter pylori Infections

Helicobacter pylori (H. pylori) is a bacterium linked to various gastrointestinal disorders, including gastritis, peptic ulcers, and gastric cancer. Traditional antibiotic treatments are becoming less effective due to rising antibiotic resistance, necessitating alternative therapeutic strategies.

A recent study introduces a magnetically guided flexible origami robot designed for long-term phototherapy of H. pylori infections in the stomach. This innovative device employs a flexible structure integrated with wireless charging capabilities, enabling it to deliver sustained light therapy directly to the gastric mucosa. The robot's movement is controlled externally via magnetic fields, allowing precise navigation and positioning within the stomach.

The research demonstrates that this robotic system can effectively target and eradicate H. pylori bacteria through phototherapy, offering a non-invasive and antibiotic-free treatment option. This technological advancement represents a significant step forward in gastroenterology, providing a potential solution to the challenges posed by antibiotic-resistant H. pylori strains. Further clinical studies are necessary to validate the safety and effectiveness of this approach in human patients.

Reference: Yuan, S., Liang, B., Wong, P. W., Xu, M., Li, C. H., Li, Z., & Ren, H. (2024). Magnetic-Guided Flexible Origami Robot toward Long-Term Phototherapy of H. pylori in the Stomach. *arXiv preprint arXiv:2405.07216*



WHATS COMING NEXT.....

- Colon Cancer Prevention: What You Need to Know
- Heart Health for Women: Understanding Unique Risks
- Decoding diagnostics - Liver Fibroscan
- Practical tips : Snacks that love your heart
- Ask the doctor- Does having frequent nausea mean having something serious?