

Sarver Heart Center



July 30, 2021

Use Resilience to Get through Stressful Times, Protect Your Heart



Everyone has experienced weariness, particularly during this ongoing COVID-19 pandemic. Whether weariness is due to COVID-related loss of life, family or childcare-related stress, health, employment, relationships, or even stress from being in person again, resilience of character is good for your mental health as well as your heart.

"I don't think any of us thought we'd be dealing with the stresses of the COVID-19 pandemic for this length of time, but it is important not to get

discouraged and to use tools to stay positive, even in hard times," said **Nancy K. Sweitzer, MD, PhD**, director of the Sarver Heart Center, professor of medicine and chief of cardiology at University of Arizona College of Medicine – Tucson. "Studies repeatedly show that a person who responds to adversity with resiliency has less cardiovascular disease than a person who focuses on negativity. It's strong evidence of the brain-heart connection," added Dr. Sweitzer.

Many of the recommendations for heart health apply to health in general, including mental health and what's needed to build resiliency.

Read more from Dr. Sweitzer and Michael Grandner, PhD

Vaxed Up to Protect Patients. Please Do Your Part.



We know our patients with heart disease are at higher risk of complications if infected with SARS-CoV-2 virus, which causes COVID-19 illness. Community spread is increasing in Arizona and is occurring primarily in the unvaccinated at this point, demonstrating that vaccination works. We need more people to get vaccinated to keep our community safe and healthy.

We have been vaccinated to keep our patients, our families, our coworkers and our community safe. If you haven't yet scheduled an appointment, please visit the **Arizona Department of Health Services County Vaccine Resources webpage**. The COVID-19 vaccine is free, safe and effective.

"Some of my patients have raised concerns about heart inflammation (called myocarditis or pericarditis), which may have occurred following COVID-19 vaccination. These cases are very rare. We are seeing many more COVID 'long haulers' - patients who have ongoing heart and lung issues due to the impact of the virus on their health," said **Dr. Nancy Sweitzer**.

Vaccines are highly effective and going without a mask may seem like a great reward, especially outside or indoors with other vaccinated people. But as community spread increases due to new highly transmissible variants, it may be too soon to stop wearing a mask.

"Our knowledge and understanding of this virus and the illness it causes are changing rapidly, as the scientific evidence grows. This is typical of any newly recognized illness," said Dr. Sweitzer. Keep up to date and get the latest scientific information and recommendations at trusted sources, such as the <u>CDC</u>.

Read More About Vaccine Benefits and Mask Recommendations

Collaboration at the Heart of 35 Years of Success



When Sarver Heart Center was established July 10, 1986, by the Arizona Board of Regents, it formalized the vision of Eugene Morkin, MD, PhD, a cardiologist and biochemist, and Jack C. Copeland, MD, a cardiothoracic surgeon who was a pioneer in heart transplantation. The scope and stature of the highly collaborative center was elevated under the leadership of Gordon A. Ewy, MD, a renowned cardiologist and CPR Giant who changed the world's view of CPR in cases of sudden cardiac arrest.

Now, as Sarver Heart Center commemorates 35 years of research, teaching, collaboration and discovery across academic disciplines, open collaboration begins at the top under the leadership of **Nancy K**.

Sweitzer, MD, PhD, director of the Sarver Heart Center, and **Carol Gregorio, PhD**, co-director.

"I like to call the Sarver Heart Center the intellectual home for people working in cardiovascular medicine, no matter what their department affiliation," said Dr. Sweitzer, who also is division chief of **<u>cardiology</u>** at the **<u>College of Medicine – Tucson</u>**.

Read More About the Future of Research at Sarver Heart Center

Phase 1 Investigational Drug Trial Underway in Patients with Heart Failure

The Sarver Heart Center Cardiovascular Clinical Research Program is participating in a phase 1 investigational drug study to assess the safety and explore the effectiveness of a new drug in patients with heart failure and reduced ejection fraction (HFrEF), also called systolic heart failure.

Ejection fraction is a measure of heart function most commonly obtained during a cardiac ultrasound examination or echocardiogram. Ejection fraction is the percent of blood pumped out of the main pumping chamber of the heart (the left ventricle) during each heartbeat. A normal heart pumps out 60% of the blood in the left ventricle with each beat. Patients with HFrEF have ejection fractions of 40% or less, so less than two-thirds normal.

"Phase 1 trials are the earliest studies investigating effects of new drugs in human populations," said **Dr. Nancy Sweitzer**, principal investigator of this trial at the UArizona Sarver Heart Center site. "This is an exciting new class of compounds that have potential to profoundly impact heart failure by leading to significant increases in ejection fraction even with a single dose. But it is very important with new compounds to ensure they are safe and well-tolerated. Prior to beginning a phase 1 study of compounds, drugs have cleared lots of safety testing in other species."

In heart failure, when hearts are very weak, with reduced pumping function, there are many medications that help improve symptoms and ejection fraction often improves. However, sometimes it improves only minimally, and in about 30% of patients it doesn't improve at all.

"Typically, this will lead to limitations, difficulty with activity and how much can be accomplished in a day due to fatigue or shortness of breath, even breathlessness with minor activities such as dressing or bathing. The drug being tested in this early phase trial, JK07, seems to have an ability to increase ejection fraction that is unique and seems to be longlasting, even after a single dose, a very intriguing early result," said Dr. Sweitzer.

To be eligible, a patient should have reduced ejection fraction and be on a stable heart failure medical regimen in line with national treatment guidelines for at least three months prior to enrollment and will remain on

the same treatment regimen throughout the study.

After outpatient screening, participants are randomized into the doubleblind study, so neither the patient or health care team know if the drug JK07 or a placebo was given. "The study is structured so that the chance of receiving active drug is very high – four in five patients receive active drug," said Dr. Sweitzer.

The patient will be observed in the hospital for two to three days. During this time, they will have monitoring of heart function, heart rhythm, and liver and kidney function prior to and after receiving the study drug. Only a single dose of JK07 is given. After leaving the hospital clinic visits are scheduled over a six-month period using assessments of symptoms and echocardiograms to monitor response to the drug over time.

This is one example of the more than 20 clinical research studies underway in Sarver Heart Center's Cardiovascular Clinical Research Program. To learn more about clinical research at Sarver Heart Center, visit **SARVER HEART CENTER CLINICAL RESEARCH**

Visit the Clinical Research Page

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Sarver Heart Center's education of future cardiologists, advancement of patient care through science and clinical trials, and long-standing commitment to community outreach and education, are made possible because of support from readers - like you. Please consider a donation to support our mission as we work to innovate life-saving patient care.

Learn How To Give

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