



BALKHY PERFORMING ROBOTIC CARDIAC SURGERY
PHOTO BY ROBERT KOZLOFF

day, but only about 10 [traditional] open chest surgeries a year," Balkhy says. The da Vinci robot is constantly improving, offering additional functionalities that allow for more precise, more advanced minimally invasive surgeries.

One exciting recent advance, Balkhy says, is a mini-stapler for coronary artery bypasses. The staples allow surgeons to "automate, standardize and make reproducible the act of connecting bypass grafts to the small heart arteries," he says, creating a new pathway for blood to pump with a significantly less-invasive approach than what would traditionally be used.

Significant advancement is happening in transplantation, too. Anderson points to new perfusion technology that can keep a heart beating on its way to a transplantation procedure. The development — colloquially called "heart in a box" — allows a heart to beat and circulate blood outside of the body until it is ready for transplant surgery. In a transplant situation, where every minute counts, the heart can be viable for longer, enabling better transplant access to patients in remote areas.

Anderson says he's hopeful of a future where heart disease is a more manageable illness.

"Cardiovascular disease as a cause of death in America is decreasing because we're attacking successfully on all fronts," he says. "While mortality is inevitable, we can improve quality and quantity of life by better managing cardiovascular disease — ultimately giving our patients a chance to grow old."

Considering the rapid rate of advancement, many more patients will be able to treat heart failure successfully with the help of these new technologies — and that is heartening news indeed. +

Using Apps for Heart Health

"There's an app for that" the saying goes, and that's certainly true for cardiovascular health. Whether you want to check your heart rate, track your blood pressure or get tips on keeping your heart strong and healthy, you can find an app that matches your interest and needs. Just be aware that fitness and heart health apps may not always be accurate, cautions Martha Gulati, MD, editor-in-chief of the American College of Cardiology's CardioSmart website.

If you're interested in an app that will take a measurement like blood pressure, make sure it's been approved by the Food and Drug Administration, Gulati advises. You can find examples of approved apps on the medical device section of the FDA website. Apps that are not medical devices do not need FDA approval.

An app is never a substitute for advice from your healthcare provider. "Formulas in your devices that give certain information may or may not be accurate," Gulati says. "Your Fitbit, phone or other technology may not accurately measure steps."

Technology can get you moving and provide you with valuable fitness feedback. So start tracking your health with the latest apps. — Julie A. Jacob

CHECK OUT THESE HEART HEALTH AND EXERCISE APPS:

ASCVD Risk Estimator



Developed by the American Heart Association and American College of Cardiology. Assesses your risk of developing cardiovascular disease.

Cardio — Heart Rate Monitor



Measures your heart rate using your phone's camera to record changes in your skin when your heart beats. Pro version calculates your target heart rate for exercise and rest.

Calorie Counter & Diet Tracker by MyFitnessPal



Syns to activity trackers and tracks the calories and nutrients in foods you eat to help you monitor your overall health.

Spotify Running



Picks songs based on your running pace and keeps workouts engaging, so you exercise for longer. (Running features can be found through the "browse" menu on the Spotify app.)

7 Minute Workout Challenge



Provides 12 exercises in seven minutes — perfect for those who don't have time to go to the gym but still want to get their heart rate up.