



Social Distancing and Biometrics BRIDGING THE GAP

— By Narendra Singh, MD —

We are living in unprecedented times with a pandemic that has put the entire world in temporary social isolation. While social distancing (6 feet rule, masks) and shelter in place orders have become the norm they make it difficult for individuals with heart conditions to get the care that they need. Technology however is helping bridge this gap. Here is a **checklist of useful devices** to have in place if you are a cardiac patient.

Most individuals already have a **weight scale and tape measure**. Monitoring your weight allows you to check the impact of dietary modifications and exercise programs. For patients with heart failure daily weights can assess the amount of fluid retention and allow for adjustments to your diuretic dosage. The tape measure provides your height and waist circumference. This allows us to calculate your BMI (body mass index). A BMI over 30 is considered obesity and less than 18.5 is underweight.

Next, and most useful, is a **blood pressure cuff**. Arm cuffs tend to be more accurate than the wrist cuffs. Digital devices are easy to use but do require proper application and sometimes more than one reading. Normal blood pressure is a systolic (top number) reading of less than 130 and a diastolic (bottom number) reading of less than 80. Most devices also give a third number which is your heart rate. Bradycardia (slow) heart rate is less than 60 and tachycardia (fast) heart rate is greater than 100.

Exercise is vital to improving your cardiovascular health. Having a **pedometer** either

as a stand alone device such as a Fitbit or through your smartphone apps allows one to assess heart rate, sleep time and the number of steps taken. The goal is to achieve at least 10,000 steps a day but, if this is not feasible, setting a reasonable target and incrementing over time is beneficial.

Blood oxygen monitors (oximeters) are relatively inexpensive and by applying to your fingertip can give a good indication of how well your heart is oxygenating. An oxygen saturation of > 95% is good, while anything less than 90% is concerning and usually will require an urgent evaluation as well as supplemental oxygen. Oximeters will also let you know your heart rate.

Finally, if you have any palpitations (heart fluttering or racing), dizziness or fainting, a **portable ECG monitor** will be of tremendous value. By far the best (but also the most expensive) is the Apple Watch Series 4 or 5. This watch can be worn continuously and through the EKG app record a 30 second strip of your heart rhythm that can then be printed out or emailed to your doctor. The device has been validated in the large Apple Heart Study to be able to detect a serious

rhythm condition called atrial fibrillation. Less well-studied but more affordable portable ECG monitors now also exist for non-Apple users.

All of the technologies listed above can be ordered from the comfort and safety of your home through delivery companies such as Amazon. Most cardiology offices are now set up for **telemedicine virtual visits**. These visits can never replace the value of a hands-on, in-person evaluation but in these extraordinary times can provide much needed care and advice to those in need. Stay strong, stay home!

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