Dynamic Chiropractic

PATIENT EDUCATION

When Your Patients Ask, How Will You Respond?

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This is the fourth in a series of 2021 articles dedicated to examining how patients' increasing fascination with health monitoring via technology – specifically the smartwatch – can not only provide *you*, their doctor of chiropractic, with valuable information regarding their health status, but also take the DC-patient relationship to an entirely new level. While the wearable technology marketplace features numerous brands, we'll use the latest Apple Watch (Series 6) as our example. Keep in mind that some of the tracking features discussed in this and subsequent articles are also included in previous Apple Watch iterations.

With 2021 more than halfway over, we can draw two definitive conclusions regarding the state of health care moving forward: 1) *Wellness* and *prevention* are destined to remain buzzwords for years to come; and 2) An increasing number of patients, current and future, will be asking you to help direct their health beyond the spine.

That means regardless of your practice philosophy, you need to be prepared to answer patients' questions about topics you may not have discussed in the past; and lead them on their health journey as it transcends the too-long-entrenched sickness care model so prevalent in the U.S.

The watch on your patient's wrist may hold the key to these conversations – a point made abundantly clear in this article series. In this installment, let's talk about health variables patients can track via their smart watches (as always, using the Apple Watch 6 as our example) that can help build the doctor-patient relationship in this unprecedented post-COVID era of health and wellness.

1. Heart Rate

Do you ever take your patient's pulse before their appointment? The Apple Watch does it automatically. The watch has built-in electrodes that take resting, walking, breathing, workout and recovery rates (intermittently and on demand), depending on your patient's activity.

The Technology: "The optical heart sensor in Apple Watch uses what is known as photoplethysmography. This technology, while difficult to pronounce, is based on a very simple fact: Blood is red because it reflects red light and absorbs green light. Apple Watch uses green LED lights paired with light?sensitive photodiodes to detect the amount of blood flowing through your wrist at any given moment. When your heart beats, the blood flow in your wrist - and the green light absorption – is greater. Between beats, it's less. By flashing its LED lights hundreds of times per second, Apple Watch can calculate the number of times the heart beats each minute – your heart rate."[1]

2. Blood Oxygen

The heart-friendly capabilities of the Apple Watch don't end with heart rate recordings; that's just

the beginning. The watch also has the ability to measure blood oxygen levels, also intermittently and on demand.

The Technology: "In Apple Watch Series 6, the optical heart sensor has been redesigned to add blood oxygen measurement capabilities. During a blood oxygen measurement, the back crystal shines red and green LEDs and infrared light onto your wrist. Photodiodes then measure the amount of light reflected back.

"Advanced algorithms use this data to calculate the color of your blood. The color determines your blood oxygen level - bright red blood has more oxygen, while dark red blood has less."[2]

3. Heart Rhythms

We're not done with heart health and the Apple Watch. The watch can also detect if your patient is experiencing an irregular heart rhythm.

The Technology: "The ECG app can record your heartbeat and rhythm using the electrical heart sensor ... and then check the recording for atrial fibrillation (AFib), a form of irregular rhythm.

"The ECG app records an electrocardiogram which represents the electrical pulses that make your heart beat. The ECG app checks these pulses to get your heart rate and see if the upper and lower chambers of your heart are in rhythm. If they're out of rhythm, that could be AFib."[3]

Relevance to Your Practice

While none of these tracking tools are commonly utilized in chiropractic (yet), they serve a valuable role for several reasons. First, being able to monitor and discuss heart health variables such as heart rate, rhythm and oxygen saturation – variables your patients are increasingly tracking themselves – advances the doctor-patient relationship with both new and existing patients. You're no longer the "back pain doc" in your practice or community.

For example, in the chiropractic setting, heart rate is important for the same reason it matters in other provider settings: it can indicate whether immediate referral to an ER or other health care provider is necessary (if it's critically high or low).[4] Within a long-term care plan, it can also give you an indication of whether interventions such as diet, exercise and stress-reduction techniques – all of which can influence heart rate – are working.

As for blood oxygen,"Your blood oxygen level represents the percentage of oxygen your red blood cells carry from your lungs to the rest of your body. Knowing how well your blood performs this vital task can help you understand your overall wellness."[2]

Low blood oxygen can be a sign of a number of health conditions, including asthma, heart disease, lung disease, chronic obstructive pulmonary disease (COPD, pneumonia, fluid in the lungs and even sleep apnea.[5] While a single low reading (under 90 percent) probably isn't cause for concern, chronic low readings are a reason to investigate further and/or refer to another provider.

While irregular heart rhythms are generally harmless, some can be serious or even life-threatening. Regardless, if your patient experiences an arrhythmia (as identified via their smart watch) and asks you about it, you have two choices: tell them you don't know what they're talking about and suggest they talk to their "real" doctor (*ouch*); or have an informed, knowledgeable, trust-building conversation about heart rhythms and what abnormalities could mean. Even if it

leads to a referral to an MD,[6] the patient will leave your office believing in you as their "real" doc as much as any other.

While these tools may not be top of mind for the majority of DCs, the savvy chiropractor will jump at the chance to use them to better engage with their patients as a primary care provider while advancing their ability to co-manage patients who might otherwise only see a DC for low back pain. You may be hesitant to journey outside your vertebral bubble, but you'll find more and more patients want you to do so.

References

1. "Monitor Your Heart Rate With Apple Watch."
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3. "Taking an ECG With the ECG App on Apple Watch Series 4, Series 5, or Series 6."
4. "How's Your Heart Rate and Why It Matters?" Harvard Health, March 25, 2020.
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