



# Digital Health Technology: Enhancing Wellbeing with Innovation

Digital health technology is an ever-evolving field that enhances wellbeing using innovative sensors, devices, and applications.<sup>1</sup> Wearable devices can track biometric data, help you assess patterns in your health-related behaviors, and even detect illness.<sup>2</sup>

Remote patient monitoring (RPM) devices are widely used by healthcare providers nationwide. These devices allow providers to gather health data between patient visits, which helps improve treatment decisions.

## Here is what's new in wearable health devices:

- **Continuous Glucose Monitors (CGMs):** Using Bluetooth technology, CGM devices offer precise and continuous tracking of glucose levels, which can be vital for people living with diabetes. Some CGM devices, such as Dexcom and FreeStyle Libre, require a prescription, while newer over-the-counter versions are designed to provide greater insight into how day-to-day lifestyle choices impact health.
- **Smart Contact Lenses:** Smart contact lenses measure glucose levels through tears, potentially offering a non-invasive alternative for glucose monitoring. These lenses could dramatically improve diabetes care by providing continuous glucose data without the need for finger-pricking.
- **Biosensors:** Wearable devices with integrated biosensors provide information about your body's physiological state by measuring metrics like hydration, heart rate variability, and stress levels.

- **Smart Watches:** Advanced smartwatches, such as the Apple Watch Series 9 and the Fitbit Sense, now come with sensors capable of monitoring heart rate, ECG, blood oxygen levels, and sleep patterns. These devices offer actionable insights that can help you manage chronic conditions, track physical activity, and improve overall fitness.

Similarly, non-wearable health technology is also advancing. For example, smart beds can detect sleep pattern interruptions and automatically raise the head of the bed to alleviate snoring.<sup>3</sup> Many smartphones contain built-in sensors, such as accelerometers and temperature sensors, that can alert you to changes in your body physiology.

Digital health devices are evolving rapidly to help identify potential health issues early, so you can take proactive steps to support your health. Talk to your provider about what device(s) may be beneficial for you.

1. Deng Z, Guo L, Chen X, Wu W. Smart Wearable Systems for Health Monitoring. *Sensors (Basel)*. 2023;23(5):2479. Published 2023 Feb 23. doi:10.3390/s23052479

2. Verywell Health. "Got a Cold? Your Smartwatch Can Detect It Before You Do." October 07, 2021. Accessed September 27, 2024. <https://www.verywellhealth.com/wearable-health-technology-detect-illness-5204814>

3. Verywell Health. "Sleep Technology: Gadgets and Products Designed to Enhance Sleep." June 08, 2023. Accessed October 12, 2024. <https://www.verywellhealth.com/technology-to-enhance-sleep-4164363>



## Is Screenshot Affecting Your Health?

Screenshot refers to the amount of time spent using digital devices, such as computers, smartphones, tablets, and televisions—essentially anything with a screen. Many health benefits are associated with the use of digital devices. For example, telemedicine has made it possible to connect with a healthcare provider from your phone, tablet, or laptop. Likewise, wearable devices like smartwatches can help you monitor physical activity, heart rate, and sleep patterns.

However, with the average American adult interacting with screens for more than 7 hours per day, it is vital to understand how this constant exposure impacts health.<sup>1</sup> Excessive screen use can lead to:

- 1. Eye Strain and Discomfort:** Prolonged exposure to screens, particularly blue light, can cause digital eye strain, manifesting as dry eyes, blurred vision, eyelid twitching, and headaches.<sup>2</sup>
- 2. Sleep Disturbances:** Blue light emitted from screens interferes with the production of melatonin, which can disrupt sleep patterns.
- 3. Mental Health Concerns:** High screenshot is linked to increased anxiety, depression, and diminished cognitive function.
- 4. Digital Dementia:** Prolonged screenshot has been linked to digital dementia, which is associated with short-term memory loss and difficulty with word recall.<sup>3</sup>

To counteract the effects of increased screenshot, incorporate these tips:

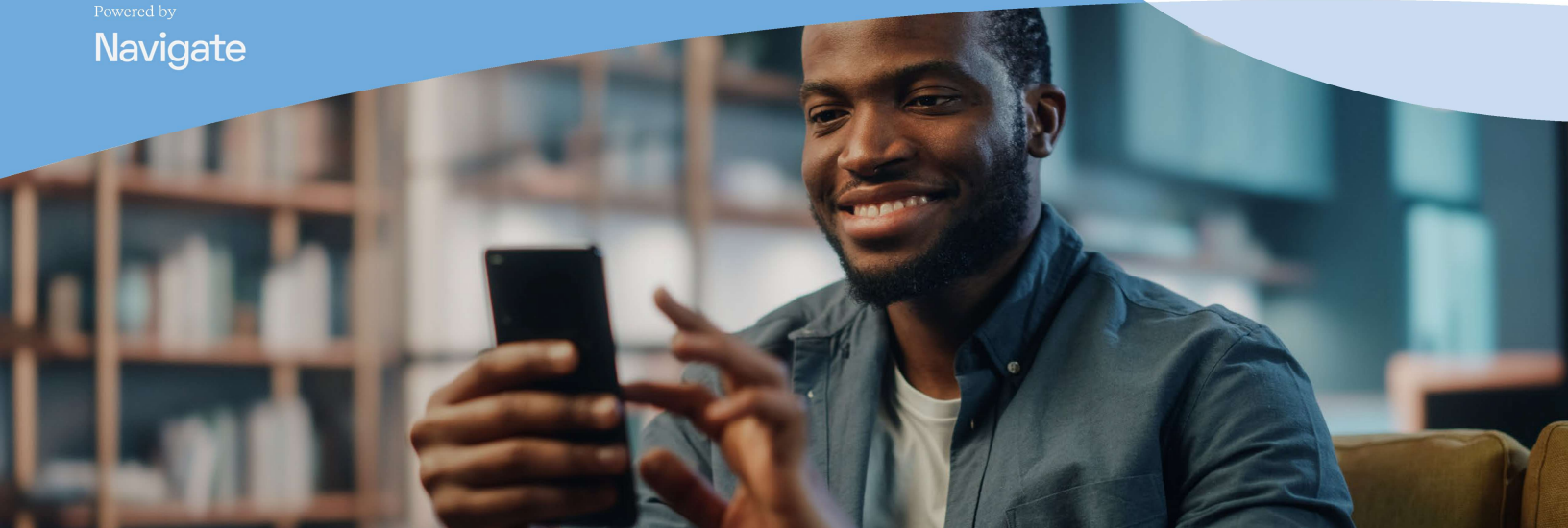
- **Regular Breaks:** Follow the 20-20-20 rule by looking away from your screen at something 20 feet away for at least 20 seconds every 20 minutes.
- **Physical Activity:** Aim for at least 30 minutes of exercise most days of the week. Activities such as walking, swimming, or yoga can reduce the time spent sitting in front of screens.
- **Offscreen Hobbies:** Reading a physical book, gardening, or practicing a craft can provide meaningful screen-free downtime and reduce eye strain.

By making small adjustments, you can significantly improve your eye health and reduce the adverse effects of excessive screenshot. As you take charge of your screenshot habits, you can protect your eyes, get better sleep, and prevent mental health decline.

1. Allconnect. "The average adult spends over seven hours online - here's how you can manage your screen time." February 23, 2024. Accessed September 28, 2024. <https://www.allconnect.com/blog/screen-time-stats>

2. Healthline. "Blue Light from Your Phone May Be Permanently Damaging Your Eyes." September 2, 2018. Accessed September 29, 2024. <https://www.healthline.com/health-news/phone-may-be-damaging-your-eyes>

3. Healthline. "Can Excessive Screen Time Cause "Digital Dementia"?" September 6, 2024. Accessed September 29, 2024. <https://www.healthline.com/health-news/queen-guitarist-brian-may-stroke#The-bottom-line>



# 7 Apps to Boost Your Wellbeing

Health apps have evolved to improve self-awareness and promote healthy behaviors, making it easier to target specific health areas. Apps provide real-time feedback to help you make better decisions about your health. With hundreds of thousands of health apps available, you can track your fitness, monitor your nutrition, and support your mental health.<sup>1</sup>

**Here are some popular health apps that can propel your path to better health:<sup>2</sup>**

- 1. Fitbit:** This app syncs with Fitbit devices to monitor your physical activity, sleep patterns, and heart rate, helping you set and achieve fitness goals.
- 2. Under My Fork:** This nutrition app allows you to track your food intake, understand nutritional composition, and build healthier eating habits through personalized recommendations.
- 3. Flo:** A widely used menstrual health app, Flo helps you track your cycle, predict ovulation, and gain insights into your reproductive health.
- 4. Telehealth Apps:** Virtual health platforms enable you to consult with healthcare providers remotely, making it easier to access medical advice without needing to visit a physical clinic.
- 5. Calorie King:** This user-friendly app offers a vast database of foods, helping you track calories and make informed dietary choices.

- 6. Calm:** Support your emotional wellbeing with short, guided meditations throughout the day.
- 7. FoodSmart:** This app guides you in meal planning, grocery shopping, and finding healthier alternatives to your favorite foods.
- 8. Yuka:** This scanning app provides nutritional information about foods and scores their healthiness, empowering you to choose healthier options when shopping.

While health apps can be incredibly beneficial, it is important to acknowledge some potential drawbacks. For instance, the accuracy of information varies between apps, leading to unreliable data and misguided decisions.<sup>3</sup> Additionally, privacy concerns have continued to be an issue since many apps collect and track personal data.

While apps can provide guidance and support, they cannot replace professional medical advice or reliable treatment recommendations. Be sure to consult with healthcare professionals for personalized medical guidance. Always choose your technology tools wisely and be mindful of their limitations.

1. Agency for Healthcare Research and Quality, Patient Safety Network. "Emergence of Application-based Healthcare." August 5, 2022. Accessed September 29, 2024. <https://psnet.ahrq.gov/perspective/emergence-application-based-healthcare>

2. Partnership for a Healthier America. "12 Apps to Help Reach Your Health Goals." Accessed September 29, 2024. <https://www.ahealthieramerica.org/articles/12-apps-to-help-reach-your-health-goals-222>

3. Gordon, W.J., Landman, A., Zhang, H. et al. Beyond validation: getting health apps into clinical practice. *npj Digit. Med.* 3, 14 (2020). <https://doi.org/10.1038/s41746-019-0212-z>

# SCREEN-TIME BUDDHA BOWL



Feel free to customize the ingredients based on your preferences and dietary requirements. This Screen-Time Buddha Bowl is a nourishing and colorful meal idea to incorporate into your routine to support your overall health amidst digital device usage.

## Ingredients

- 1 cup quinoa, cooked
- 1 small sweet potato, diced
- 1 cup broccoli florets
- 1/2 avocado, sliced
- 1/2 cup chickpeas, drained and rinsed
- 1/4 cup hummus
- Sesame seeds for garnish
- Salt and pepper to taste
- Olive oil for roasting

## Instructions

1. Preheat Oven: Preheat the oven to 400°F (200°C).
2. Roast Vegetables: Toss the sweet potato and broccoli in a drizzle of olive oil, salt, and pepper. Roast in the oven for 20-25 minutes or until tender.
3. Prepare Chickpeas: In a separate pan, roast the chickpeas with a sprinkle of salt for about 15-20 minutes until crispy.
4. Assemble Bowl: Begin by placing a base of cooked quinoa in a bowl. Arrange the roasted sweet potato, broccoli, sliced avocado, and roasted chickpeas on top.
5. Add Hummus: Dollop hummus in the bowl or drizzle over the top.
6. Garnish: Finish with a sprinkle of sesame seeds for added crunch and flavor.
7. Enjoy: Drizzle with olive oil and season with additional salt and pepper if desired. Mix everything together and enjoy this wholesome and nutritious Buddha bowl packed with healthful ingredients to balance the effects of screen time.

## Nutrition Facts

**Calories:** 450  
**Protein:** 15g  
**Fat:** 15g  
**Carbohydrates:** 65g  
**Fiber:** 14g  
**Sugar:** 5g

## Benefits

- **Quinoa:** Rich in protein and fiber, quinoa provides sustained energy and promotes digestion.
- **Sweet Potato:** Packed with Vitamin A and fiber, sweet potatoes support eye health and overall wellbeing.
- **Broccoli:** High in antioxidants and Vitamin C, broccoli can help reduce eye strain and support the immune system.
- **Avocado:** A source of healthy fats and Vitamin E, avocado promotes brain health and skin health.
- **Chickpeas:** High in protein and fiber, chickpeas keep you feeling full and support digestion.
- **Hummus:** Provides protein and gut-friendly probiotics for digestive health.