



# Technology Assessment

## Direct-to-Patient Live Telemedicine

There are three main areas to consider for both the provider and the patient.

1. The **device** that will be used (computer, tablet, smartphone).
2. The **network** a device connects to.
3. The **connectivity** method used to access your network.

### Device

Choose one of the following devices:

1. Desktop computer with a display, speakers, web camera and microphone
2. Laptop computer with a display, speakers, built-in or external camera and microphone
3. Tablet with a camera and microphone
4. Smartphone with at least a 5.5" display, camera and microphone

When choosing a device, consider screen size, picture quality and stability to maximize the experience. Identify consult requirements and information exchange (test results and imaging) during the consult to determine appropriate screen size and picture quality. Internal or attached external cameras require stability, and should not hand-held. Just because you *can* connect with a hand-held smartphone doesn't mean you *should*. Keep in mind how you and your patient will view one another.

### Network

Connect to the internet using a stable network with good bandwidth. To determine your network bandwidth, open a browser and go to [fast.com](http://fast.com) to test. Keep in mind that every device on your network connected to the internet will draw down that bandwidth. Sufficient bandwidth is needed to allow transmission of media (audio, video, & images). [www.HealthIT.gov](http://www.HealthIT.gov) has a list of recommended internet speeds for different healthcare facilities.

### Connectivity

In order to get your chosen device on the internet, you'll have to connect to your network. To achieve this there are two main methods; wired connection and WiFi.

1. The most secure, stable connection is through a network cable. This connection generally has higher bandwidth and is less susceptible to interference than WiFi. This type of connection is usually set up by an IT department at your office or by connecting to a modem at home.
2. WiFi connects portable devices to the network (and internet) without a network cable. Keep in mind that the signal will have less available bandwidth due to many factors such as distance to the WiFi receiver and the number of walls between you and the receiver. Also note that bandwidth is shared among all people accessing WiFi at any given time, thus the number of people using it will have an effect on the available bandwidth.