



Virtual Care Troubleshooting Guide

Adapted with permission from the Ontario Therapy Network

IMPORTANT: Most audio issues can be solved by using headphones with a built-in microphone. If this does not solve your issue or this is not possible, proceed through this guide.

Audio Issues

This section provides step-by-step instructions to overcome the most common audio problems that can occur during a videoconference. Typical audio issues are addressed below. These include:

1. Others can't hear you.
2. You can't hear others.
3. You hear an echo or audio feedback.
4. Poor quality sound.

1. Others Can't Hear You

The Short Answer:

There might be a problem with your microphone or the client's speakers.

First check your microphone.:

- If an external microphone, make sure it is properly plugged into the correct socket on your computer and switched on.
- Check that your computer's sound setting is not muted or turned to a low setting.
- Check the software microphone controls. Ensure the microphone is on and not muted.
- Check that eHab is using the correct microphone.
- If the microphone is properly connected and configured but others still can't hear sound, you might need to update your microphone driver. Check the manufacturer's website for the latest drivers.

Second, it could be an issue with the output on the other end of the call. If the above solutions do not work, ask the other user to check their speakers by following the instructions in the next section "You can't hear others" (particularly if it is a 3-way call and only one participant cannot hear).

2. You Can't Hear Others

The Short Answer:

There might be a problem with your speakers or the other caller's microphone.

If there are multiple people on the call and you are the only one who cannot hear, then there is a problem with your speakers.

- If you are using external speakers, check the physical setup and ensure that they are properly plugged into the correct socket on your computer and switched on.
- Check that your computer's main audio settings are not muted or turned to a low setting.
- Check the eHab speaker controls. Ensure the speaker is on and not muted.

- Check that eHab is using the correct speaker.
- If the speakers are properly connected and configured but you still can't hear others, you might need to update your speaker driver. Check the manufacturer's website for the latest drivers.

If there is only one person that you cannot hear, then it could be a problem with their microphone. Ask them to check their microphone by following the instructions in the previous section of this guide, "Others Can't Hear You".

3. You Hear an Echo or Audio Feedback

The Short Answer:

Echoing or audio feedback is usually caused when the sound from a caller's speaker is 'looping' back into their microphone.

If an echo happens during a videoconference, stop and ask who hears it. *The participant who does not hear the echo is the source.* If you hear your own voice echoing, the problem is on the other person's side. If the other person hears their voice echoing, the problem is on your side.

To identify which participant is causing the echo:

- Ask all participants to mute their own microphone.
- Have each user un-mute their microphone one at a time until you find who is causing the echo.

Clinician Side:

If there is the potential for multiple microphones in your set-up (e.g. both external and internal laptop microphones), make sure the device your software is using is the one you want to use. To test whether or not you are using a particular microphone:

- First activate the mute control on the device itself.
- Then ask other participants if they can still hear you.
- If they can still hear you, the software is using a different microphone.

Using a physically separate headset and with integrated microphone (e.g. Logitech 540 recommended in the hardware section) is the best way to prevent feedback. If using a separate USB-based speakerphone in the case of team-based care, ensure it has built-in echo-cancellation.

Patient Side:

Typically, patients will be using a built-in microphone or lower quality devices rather than recommended echo-cancellation devices. If the caller causing the echo does not have the recommended equipment, ask them to try:

- Moving their microphone as far away as possible from their speakers (if using an external microphone).
- Lowering their speaker volume.

4. Poor Quality Sound

The Short Answer:

There can be situations in which you can hear each other, there is no feedback, but sound is still of poor quality. A number of factors can affect the sound quality in a videoconference. Review the symptoms below to find a matching solution:

Symptom	Suggested Solution
You hear background noise	<ul style="list-style-type: none"> • Ask the person to move to a quieter location • Ask the person to move closer to their microphone when they speak, and to mute when they are not speaking • Use CBI recommended headsets, speakerphones, and webcams. Built-in equipment is more likely to pick up background noise
You hear the sound at a very low volume	<ul style="list-style-type: none"> • Use your computer's Audio Controls to increase your computer's speaker volume • If it is a specific participant you can't hear well, ask them to use their computer's Sound > Recording controls to increase the volume of their microphone
There are dropped or cut-off words	<ul style="list-style-type: none"> • Your CPU may be intermittently working on other tasks • To free-up your CPU, close all applications except those necessary for your videoconference. (For example, shut down Outlook which can use a lot of bandwidth and CPU if it is downloading large attachments) • Your Internet connection may be poor or highly variable • If you share a connection with others, another application or another computer streaming video or file downloading might be consuming bandwidth • If you are connected via a wireless connection, you can improve the quality in most cases by moving to a wired connection • To test the quality of your Internet connection, open a browser window and go to www.speedtest.net

Video Issues

This section provides step-by-step instructions to overcome the most common video problems that can occur during a videoconference.

Typical video issues are addressed below. These include:

1. You see others, but they don't see you
2. Poor quality video

1.You See Others but They Don't See You

The Short Answer:

Either your webcam is not working, or the problem is due to your privacy settings. Check your webcam's physical setup and ensure that:

- It is properly plugged into the correct socket on your computer
- It is switched on

- You don't have another application using the webcam (only one application at a time can use a webcam).
- The eHab camera button and ensure the camera is on and not in privacy mode.
- The eHab is using the correct camera.

If your device is properly connected and configured but others still can't see your video broadcast, you might need to update your camera drivers. Check your camera manufacturer's website for the latest drivers.

2. Poor Quality Video

The Short Answer:

There are several factors that can affect the video quality in a videoconference. Review the table below to understand some of the more common factors.

Symptom	Suggested Solution
Bad lighting (e.g. dull or dark image lacking detail)	<ul style="list-style-type: none"> • Good lighting is important for a good quality videoconference • Use a desk lamp to augment overhead lighting • Avoid sitting where there is a bright light behind you, such as in front of a window • For best results, the light source should originate from behind the webcam and shine on your face
Slow or busy internet connection	<ul style="list-style-type: none"> • Avoid sharing a connection with others, another application or another computer that's streaming video or file downloading which can consume bandwidth • If you are connected via a wireless connection, you can improve the quality in most cases by moving to a wired connection • To test the quality of your Internet connection, open a browser window and go to networktest.otn.ca
Computer running slowly	<ul style="list-style-type: none"> • Your CPU may be intermittently working on other tasks. To free-up your CPU, close all applications except those necessary for your videoconference. (For example, shut down Outlook which can use a lot of bandwidth and CPU if it is downloading large attachments) • If you're using a laptop, you may have problems with video calls when it's in power saving mode. Change your computer to AC power or switch your computer to maximum performance
USB Hub Versus USB port on computer	<ul style="list-style-type: none"> • Plug the webcam directly into one of your computer's USB ports whenever possible rather than a USB hub (whether the hub is one you added to your computer, is built into your flat panel monitor, or is built into your laptop's docking station). If you must use a USB hub, it should be externally powered for the device to perform well