

PARENT'S GUIDE TO

Meta Quest Pro



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- How to Use Meta Parental Supervision Tools
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- Tools & Settings to Help Teens Stay Safe



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We hear a lot about virtual reality and the "metaverse," and we're seeing Meta and other tech companies launch new devices that give people access to more immersive experiences. These virtual experiences will ultimately evolve into the metaverse, where people can create avatars that travel between devices to enable virtual, augmented and mixed reality.

Meta, the parent company of Facebook, Instagram and other communications and messaging services, is one of several companies working to build the metaverse, rolling out new devices and experiences that will enable it. Its latest device is the Quest Pro, a high-end virtual reality headset that it will offer in addition to Meta Quest 2. Meta also operates interactive virtual experiences, including Horizon Worlds, a Meta social app that's currently for 18+ and runs on Meta VR devices (and, in the future, 2D surfaces such as computers and smartphones). There are also third-party social apps like VR Chat and Rec Room.

What is Meta Quest Pro?

Quest Pro is the next-generation virtual reality headset from Meta, which is being billed as a "premium" product. It starts at \$1499.99, which is significantly more expensive than the popular Meta Quest 2 headset. Meta Quest 2 will continue to be a mainstream product, while Quest Pro is currently aimed at early adopters, creators, and developers. However, we still expect that some teens will have access to Quest Pro, so we're providing this parent guide to help ensure that those teens have the tools to use it safely. While younger children may want to use it, like other headsets, Quest Pro is only for users 13 and older.

Like Meta Quest 2, the "Pro" model immerses the user in a virtual reality environment that includes games, travel apps, sports apps and interactive social apps that enable users to interact with other people, including people they may not know. Some of the apps that run on Quest devices are produced by Meta, but many are from third-party developers. You can download apps from the Quest app store, which you can access within the headset or through the Meta Quest app. Our specific advice applies to the Quest devices and Meta's own apps. But all apps in the Quest app store are required to provide an age rating, and apps may have their own safety parameters and settings.

Although this guide focuses primarily on teen privacy and safety, some of the advice applies to adult users as well. Many of the safety tips in this guide apply to both Meta Quest 2 and Quest Pro, but some are unique to Quest Pro.

How does Meta Quest Pro differ from Quest 2?

People who have used Meta Quest 2 may notice that the Quest Pro is more comfortable. Among other things, it has a strap that makes it easier to adjust, similar to the Elite Strap that's available as an optional upgrade to Meta Quest 2. It's also more ergonomically designed and may feel lighter, even though it's actually slightly heavier than the Quest 2, due to the more balanced fit and improved comfort. A "flywheel" on the back of the strap — similar to what you find on many bicycle helmets — makes it much easier to adjust the fit of the headset, even if you're wearing glasses.





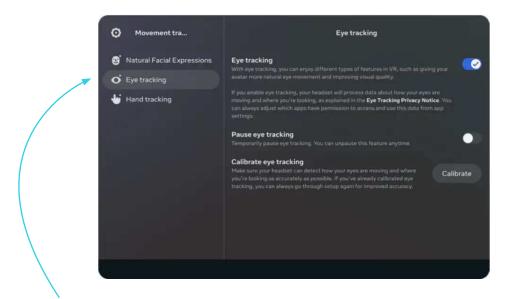
Meta Quest Pro immerses users in a virtual reality environment that includes games and social apps.

The new design may help alleviate the risk of disorientation and nausea that is sometimes experienced with VR headsets, but these issues are partially dependent on individual apps running on the headset and the user, and Meta does not make any claims to that effect. It's a good idea to review the app's comfort ratings on the Quest app store (if available) and the device's health and safety guide.

Although both Quest models have a passthrough mode that lets you see a 360-degree view of your real-life environment and surroundings, including any objects, pets or people around you, the Quest Pro's passthrough mode shows your environment in full color and with greater clarity. When passthrough is enabled, an external blue LED light is activated on Quest Pro. Also, Quest Pro has what Meta calls "open periphery design," which allows you to choose your level of immersiveness and see objects in your room — not via electronic passthrough but directly with your peripheral vision. Unlike the Quest 2, which blocks out all room light, the Quest Pro enables you to see the periphery of the room while immersed in your virtual environment. An optional accessory that blocks out all light is also included in the box.

Eye tracking, Natural Facial Expressions and other improvements

Quest Pro adds new features of eye tracking and Natural Facial Expressions that use estimations of your face and eye movements to enable your avatar to more closely mimic your own expressions in VR. As you move your eyes, smile or show expressions, so does your avatar. This not only gives you a more natural look but offers social cues to those around you in social environments. These and other concerns are covered in the safety and privacy concerns section in this guide.



Go to Settings > Movement tracking to enable, disable and configure eye tracking.

Both Meta Quest 2 and Quest Pro have other physical safety features, including the ability to create a boundary, called a **Guardian** boundary, to prevent you or your extremities from moving away from a safe physical environment.

Other significant improvements in the hardware include thinner pancake lenses, increased pixel density, local dimming, and other features that provide a more comfortable fit, higher resolution, and a more realistic view of your virtual worlds.

The Quest Pro has more memory (12 GB RAM), more onboard storage (256GB), a faster processor, more advanced sensors and spatial audio, all of which create a more immersive and natural experience.



Meta Quest app and Meta account

The Meta Quest smartphone companion app pairs to Meta VR devices, including the Quest Pro.

A Meta account is required to use the Quest Pro and Meta Quest app. If you have a Facebook or Instagram account, you can use that to streamline the Meta account sign-up process, though you can only use your Instagram account for this purpose if you're a brand new Meta VR user. You can also use your email address to set up a new Meta account. One important caveat: It's important that all users provide an accurate age when setting up an account. Teens who sign up with the correct age will have a more age-appropriate experience, such as by ensuring they default to the correct privacy settings. Teens are welcome to start from scratch by using an email account to sign up, where they will be required to enter their date of birth.



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Adults who share a headset with teens will need to sign out of their Meta account when they're done using the headset because it won't automatically sign out of the last account used.

Meta Horizon profile privacy settings

Meta Horizon profile is your social profile in VR and other surfaces, like the web. You can customize your username, avatar and other information. You can create one Meta Horizon profile per Meta account. You will be required to create a Meta Horizon profile when you sign up for a Meta account.

For the Meta Horizon profile, you can choose how private or public to be (e.g., you can decide to approve followers, who can see your activity, when you're online, what apps you use, etc.). For teens under 18, Meta account privacy settings are set to private by default, which means only someone who the teen approves as a follower can view their activity, such as when they're online and which apps they're using.

Horizon profile settings

Device-level privacy settings are managed in the Meta Quest app for iOS and Android.

- Launch the Meta Quest App
- · Select **Settings**
- Select Privacy Settings

From here, users can decide:

- Whether to have a private profile.
 Private Profile can be either on or off.
- Who can see your activity, such as the apps you use or scores associated with your apps.





Meta Horizon
profile is your
social profile in
VR and other
places, like
the web.

Profile Settings continued on page 8 >

You can choose to make this information available to everyone (public), available only to your followers (private) or just yourself (private).

- Whether to display your active status, which shows that you are online.
- Whether to show the apps you're using and you can hide or show which apps you're actively using.

As noted above, teens are defaulted to the most private setting, which means only someone who the teen approves as a follower can view their activity, such as when they're online and which apps they're using. However, teens can change their settings at any time.

You can scroll down to add "Show Links in your Horizon Profiles" (to show your Facebook and/or Instagram username) and "Automatically follow people [Facebook and Instagram contacts] you know on Horizon."

Meta parental supervision tools

Meta has developed parental supervision tools that are initiated by teens who must invite their parents to help supervise their accounts. Teens initiate the use of these tools by sending a link from their account to their parent's or guardian's account in the Meta Quest app.

We realize that not all teens will be enthusiastic about inviting their parents to supervise their accounts, but some may see the advantage of having a parent there to help them stay safe and





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have age-appropriate experiences. For others, using the Quest headset may be conditional on setting up parental supervision tools. In any case, it's important to talk with your teen about why you feel that they should — or should not — enable a parent or a trusted guardian to supervise their accounts.

Once the connection is established, parents will be able to:

- Approve their teen's download or purchase of an app that is blocked by default based on its International Age Rating Coalition (IARC) rating
- Block specific apps that may be inappropriate for their teen, which will prevent the teen from launching those apps, like web browsers and apps available on the Quest app store
- · View all of the apps their teen owns
- View their teen's list of people they follow and people who follow them
- · View time spent in VR
- Receive "Purchase Notifications," alerting them when their teen makes a purchase in VR
- Block Link and Air Link and [New]
 Developer Mode
- Enable and disable social features, like creating or joining parties, visiting or watching VR content together in Meta Horizon Home, or sending or receiving chat messages via Oculus Chat and Messenger in VR
- For more, see Parent's Guide to Meta Virtual Reality Parental Supervision Tools. For general advice on parental controls and supervision tools, see Family Guide to Parental Controls.





Meta's parental supervision tools allow parents to enable and disable social features.

Safety and privacy concerns common to most VR headsets

Most social experiences in VR (and on the web) have age restrictions, typically either 13+ or 18+ but ages can vary by jurisdiction and the nature of the content. These restrictions are designed to protect both the privacy and safety of young users, and it's very important that people be honest about their date of birth because developers often tailor their experiences to the age of the user.

Because VR headsets can be connected to the internet, the apps that run on them carry the same risks as any connected device, including computers, smartphones and consoles. These can include age-inappropriate content, cyberbullying and harassment and inappropriate contact that could lead to sexual exploitation. With all connected technology, parents are concerned about their teen's privacy and how much time they're spending on their devices.

Just as with computers, phones and consoles, parents need to be aware of the apps that their children are using, the content they are consuming, the people they're communicating with and what their children are doing and saying within the device and its apps and services. Not all Quest apps are suitable for teens. Meta requires app developers to put age ratings on their apps and apps can only be downloaded by users who are at or above the minimum age, which can vary by app and country unless a parent or guardian allows a teen to download apps that are rated above their age.

Again, this is one of several reasons it's important for teens to be honest about their age and for parents to be aware of what their teen is doing on their



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headset (parents can watch by **casting the VR video** to a nearby device). It's also a good reason to use the Parental Supervision Tools described in this guide.

Because virtual reality is so immersive, the emotional impact of abusive behavior can be more intense than it may be on two-dimensional screens like phones and computers. Also, because avatars of potentially abusive people can share space with your teen's avatar, there is a possibility of what feels like physical stalking or abuse that can elicit fears and other intense reactions.

Many social apps, including Meta's Horizon Worlds, have some version of personal boundary that keeps other avatars at a distance, so be sure to look for it. Again, knowing how to block, report and mute others are important skills, as is the ability to create a boundary around you on social apps that include that feature.

ConnectSafely has numerous resources to help parents and teens understand how to manage these and other risks. Please take a look at Metaverse and Virtual Reality Safety Tips for Parents and Online Risks and Links to Resources on How to Manage Them.

Physical safety

Using VR headsets requires users to take physical safety precautions. Some VR users have experienced nausea and dizziness as well as stress, anxiety, and even fear due to the realistic nature of immersive VR experiences. For example, standing on the edge of a virtual building can elicit fear of falling, even though you may be nowhere near an actual skyscraper. It's important to take frequent breaks while using VR and remove your headset if you ever feel dizzy, nauseous or uncomfortable.

Headsets can sometimes be uncomfortable, especially if worn for long periods, and eye strain is possible. It's important to wear VR gear properly to reduce the risk of discomfort. Quest Pro's high-quality lenses, faster processors, ergonomic design, and more comfortable fit can potentially help alleviate these potential problems. If users feel discomfort when using the headset, they should take a break and wait for any discomfort to end before resuming use.

Finally, there is the risk of physical injury when a headset fully covers your eyes and you're playing a game or engaging in an activity where you are encouraged to move around or move your arms and hands. Parents and teens should review the Meta Quest **Safety Center** and pay attention to the health and safety warnings, including setting up a Guardian boundary to "help you stay within your cleared play area."

Special privacy concerns for Meta Quest Pro

Eye Tracking

Unlike the Quest 2, the Quest Pro comes with new sensors that allow the device to estimate the movement of your eyes. This enables an optional feature called eye tracking that users can choose to opt in to. Meta says that it does not store or transmit images of your eye but will "analyze images of your eyes in real-time to create a set of numbered coordinates that estimate where you're looking in VR." The company said that raw image data of your eyes is processed on your device and deleted once processing is complete.

Those numbered coordinates are used to animate your avatar's eye contact and facial expressions, improve the image quality where you are looking in VR, and/or to interact with virtual content in VR. Eye tracking is off by default and, if turned on, can be paused at any time in the Quick Settings menu. It also turns off automatically when the headset is in standby mode.

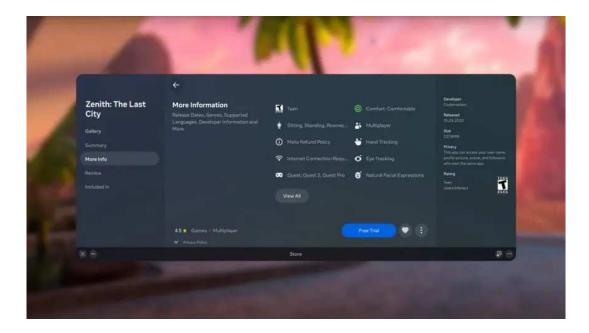
Natural Facial Expressions

If you choose to enable the Natural Facial Expressions feature, Meta Quest Pro will analyze images of your face in real-time to create a set of numbers that estimate your facial movement – this raw image data is processed on your device and deleted once processing is complete. Your actual image is not transmitted to Meta or any other party, including third-party apps. Natural Facial Expressions is also turned off by default but can be enabled by the user.

It's worth noting that this will allow your avatar to mirror the facial expressions you are making and can give other people in VR clues as to how you are reacting to their avatars. For example, if Natural Facial Expressions is turned on and you frown, smile or grimace, that expression will be reflected on your avatar and visible to others in the same social VR space as you. In most situations, that won't be a problem, but it could be if you don't want to share those reactions. It's possible, for example, that another person might take offense if they see that your avatar is frowning around them or that they might get the "wrong impression" if they see you smile at them.

Think of facial expressions as another kind of information that you want to consider sharing with others online. Just like we talk with teens about whether they should share their location with others, they should consider whether to enable Natural Facial Expressions as a form of personal information.

You can learn more about Quest Pro's privacy settings in this blog post from Meta.



The Quest app store gives more information about an app's features.

Tools & settings to help users stay safe in social apps

Most social apps, including multiplayer games, have tools to enable users to block, report or mute other people's avatars, as well as other features that can enhance a user's privacy or safety. Available tools depend on the app, so look at the app or go to the developer's website to learn about what protections they offer.

Again, Meta Horizon profile privacy settings for teens under 18 are set to private by default, which means only someone who the teen approves as a follower can view their activity, such as when they're online and which apps they're using. Teens can also change to public at any time.

Meta's private-messaging services do not allow unconnected adults to message teens. The company says that it also uses predictive behavioral signals, information from user reports, and content and signals from our public spaces to prevent and respond to harm to youth.

What if your child is using apps not rated for their age?

Even though there are rules that prohibit people under certain ages from using some apps, the reality is that many young people do lie about their age (sometimes with parental permission). We don't condone that, but we do want to make sure that all users are as safe as possible. If you have reason to believe that your child is using an app not designed for their age, start with a conversation to remind them why it's so important to be honest about their age.

All users should use the privacy and safety tools available within that app and device, avoid posting personal information, avoid engaging in inappropriate conversations, responding to people who are mean or threatening, and experiences within an app that aren't right for you. You'll find more safety advice at ConnectSafely.org.

To report someone on your headset:

- 1. Press the Oculus button on your controller to access the app menu.
- 2. Select Report Abuse.
- Select Start Recording to capture video of the user or interaction you are reporting, or select Upload Video if you've already captured a recording of the user or interaction.
- 4. If you select **Start Recording**, a recording will automatically begin, and a small red light will appear on your screen. Select **Resume** to return



To learn
more about
privacy, visit
ConnectSafely.
org/privacy

Reporting steps continued on page 15 >

to the app. To end the recording, press the Oculus button and select the recording button. You can then review the video you recorded and select **Continue** or **Record New Video**.

- 5. If you select **Upload Video**, select the video you want to upload from your **Camera Roll.**
- 6. Select the user you would like to report from the pre-populated list or search for their username using the search bar at the top.
- 7. Select the reason for your report from the **Tell Us What Happened** menu, then select **Continue**.
- 8. Review the details of your created report, then select **Submit Report**.



Final thoughts for parents

Virtual reality and, eventually, the metaverse represent a paradigm shift for technology no less significant than the invention of the personal computer and the smartphone. With each new technology paradigm, there are new risks and rewards as well as new opportunities to change the way we interact. It's a chance for companies to rethink their codes of conduct and safety procedures, for elected leaders to consider new laws and policies and both an opportunity and challenge for parents and young people to rethink how they use connected technology.

In most ways, VR is no different than other technologies, but there are some differences. Like other connected devices, young people need to learn to communicate in ways that are safe and respectful and to avoid harmful and risky situations and people who might harm them or



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merely annoy them. In many ways, the advice we give in this guide is similar to all of ConnectSafely's guides, whether they apply to devices like smartphones and computers or apps like Instagram and TikTok.

But, with this new paradigm come new risks to manage to protect users' emotional and physical health and safety. As with all aspects of life, we can't eliminate all risks, but we can manage them, greatly reduce the chances of harm and learn to recover if something bad does happen. Helping children and teens manage and heal has always been part of what it means to be a parent or caregiver, and virtual reality is no different. As a parent, you have the skills and wisdom to guide your child even if you have a bit to learn about specific technologies like Quest Pro. With a little help, you can familiarize yourself with the technology, but — mostly — you can draw on the wisdom you've already accumulated.

Change is inevitable, and technology will continue to evolve. Our love for our children and concern for their well-being is eternal.

About ConnectSafely

ConnectSafely is a Silicon Valley, California-based nonprofit organization dedicated to educating users of connected technology about safety, privacy and security. We publish research-based safety tips, parents' guidebooks, advice, news and commentary on all aspects of tech use and policy.

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