

Bytes & Brains: Supporting Families in a Growing Digital World



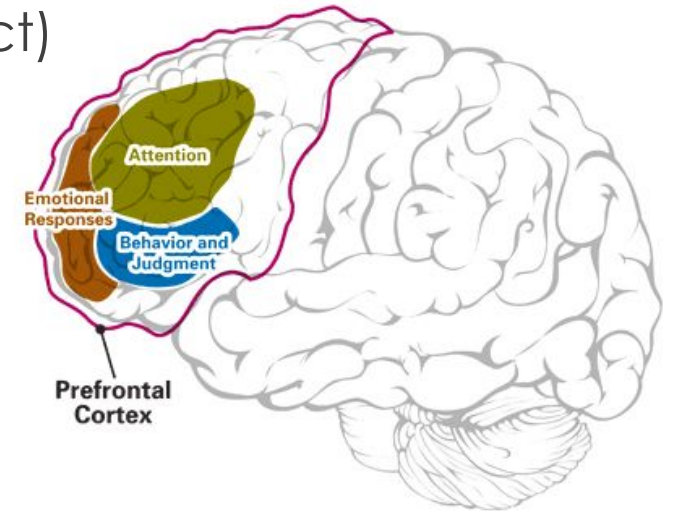
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Overview of Brain Development (Ages Birth-5 Years)

- ▶ 80% of a child's brain is developed by the age of 3
- ▶ The Prefrontal Cortex plays a key role in a child's cognitive and emotional development during their preschool and kindergarten years
- ▶ The Prefrontal Cortex controls language development, short term memory, attention span, the ability to recall memories, and the ability to learn self control
- ▶ This part of the brain is most affected by exposure to screen time

How Screen Time Affects a Healthy Brain

- ▶ Too much screen time interferes with the Prefrontal Cortex of the brain and causes too much dopamine to be produced (creating an addicting effect)
- ▶ Children who show technology addiction can
 - ▶ be easily agitated
 - ▶ have trouble sleeping
 - ▶ lose interest in communicating with others
 - ▶ have wandering attention spans



Too much screen time can actually rewire the brain at these critical times and create behaviors that are difficult to manage.



Reflect and Discuss:

What are some of the behaviors families describe to you on visits that may be related to the amount of time their child spends in front of a screen?



Reflect and Discuss:

How could you tie in a discussion
about technology use in with this
Development-Centered Parenting
topic?

How Parents Can Help Children Learn Best

- ▶ **Nature and Nurture** provide groundwork for healthy brain development
- ▶ **Face to Face** interaction
- ▶ **Reassurance**: through physical touch or emotional response
- ▶ **Sensory Experiences**: sight, sound, smell, touch, and taste
- ▶ **Integrate activities** to help brain process and make permanent connections
- ▶ **Good nutrition and exercise**
- ▶ **Healthy Sleep Habits**

Discuss and Reflect:

- ▶ Read your scenario. Consider these questions...
 - ▶ How can you partner, facilitate and reflect with the family to motivate change? Specifically, how would you respond and what questions would you ask?
 - ▶ How can home visitors encourage parents to use real life activities instead of screen time to teach skills? For example, using activities from the PAT curriculum.

Ways to Encourage Parents to Interact With Their Children

- ▶ Instead of using E- Books read a real book with their child.
- ▶ Instead of playing point and click matching games on the computer do puzzles together.
- ▶ Try finger painting, using shaving cream or tracing to strengthen fine motor skills.
- ▶ Instead of playing Tetris, build with blocks. Make patterns, talk about colors, sizes, shapes. Learn about positional words like up, on, next to, under, etc.
- ▶ In addition to listening to songs on T.V. sing together, bounce their baby gently and play pat-a-cake or have a family “dance party” as they sing together.



Recommendations for Screen Time from The American Academy of Pediatrics

- ▶ **From Birth – 18 months: No Television or Screen Time**
- ▶ **From 18 months – 5 years: around 1 hour** of television or screen time (**per day**)
- ▶ **From 6 years and older: Limited Screen Time** based on parental discretion

Family Media Plan

[HealthyChildren.org](https://www.healthychildren.org) offers suggestions to create media use plans for your family and offers tips for healthy choices regarding technology and other family topics. Click on the Family Life tab, click Media and scroll down to Make a Family Media Use Plan.

More Recommendations from The American Academy of Pediatrics

- Pediatricians agree that technology can be used to communicate and for entertainment when explored together.
- If parents choose to use technology with their children, encourage them to choose educational programs. Make sure the child can participate in the show or game. Parents should view the show with their child and talk about the content of the show – What can we learn from what we watched?
- Face Time and Skype can be helpful in creating connections with extended family.
- Encourage families to visit websites to find out about ratings for television programming and games their children. Not all sites or TV shows are safe for children to view.

Ways to Manage Family Screen Time

- Parents can choose to create a media usage plan or set limits on their phones and devices through numerous apps available to download

Android apps:

BreakFree
Dinner Time Plus
FamiSafe
Unglue
ScreenTime

iPhone apps:

OurPact
Pumpic
Moment
FamilyTime
Dinner Mode

Ways for Parents to be Media Role Models

1. Be aware of their own time watching TV or using social media
2. Set rules about where phones or other screens will be viewed
3. Make mealtimes screen free
4. Create Media Free times during the day

In Summary

- ▶ 80% of a child's brain is developed before age 3 years
- ▶ Critical Windows of Opportunity are open during these first 3 years
- ▶ Research shows the more interaction a child has with their parents the stronger brain connections will be
- ▶ Parents can help create healthy, imaginative children who want to explore their world when they limit the amount of screen time children are exposed to
- ▶ Too much screen time can interfere with the development of the prefrontal cortex in the brain by exposing children to extreme dopamine levels and can increase chances for children to have learning, language or emotional challenges as they grow up
- ▶ Encourage parents to be good Media Role Models...practice moderation with their own screen time so their children can learn healthy screen habits

Resources

Books:

- ▶ **Failure to Connect: How Computers Affect Our Children's Minds and What We Can Do About It** by Jane M. Healy, Ph.D.
- ▶ **Parenting Well in a Media Age** by Gloria DeGaetano
- ▶ **Glow Kids: How Screen Addiction is Hijacking Our Kids-and How to Break the Trance** by Dr. Nicholas Kardaras
- ▶ **Using an iPad with Your Preschooler** by Gayle Berthiaume and Gail Lovely
- ▶ **Changing Channels (Preschoolers, TV and Media Violence)** by William Kreidler
- ▶ **Preschool Clues: Raising Smart, Inspired, and Engaged in a Screen-Filled World** by Angela C. Santomero, M.A.

Resources

Websites:

- ▶ American Academy of Pediatrics: [healthychildren.org](https://www.healthychildren.org)
- ▶ Current research on screen time: <https://kathyrhasek.com/media-technology/>
- ▶ Help with researching appropriate programming for children:
[Commonsensemedia.org](https://www.commonsensemedia.org)
[Pluggedin.com](https://www.pluggedin.com)
[Kids-In-Mind.com](https://www.kids-in-mind.com)
- ▶ [Zero to Three.org/screensense](https://www.zerotothree.org/screensense): Additional handouts to share with parents

Parents As Teachers Curriculum Handouts

- ▶ Babies and TV: A Healthy Start on Screen Time (*from Foundational*)
- ▶ Toddlers Need a TV Guide- YOU! (*from Foundational*)
- ▶ Tracking Our Family's Screen Time (*from Foundational*)
- ▶ Balancing Play Time and Screen Time (*from Foundational 2*)
- ▶ Dealing with Distractions (*from Foundational 2*)
- ▶ Making the Most of Digital Play (*from Foundational 2*)
- ▶ Your Plugged-In Child (*from Foundational 2*)



Babies and TV: A Healthy Start on Screen Time

TVs are everywhere. We see them in doctor's offices and classrooms and, of course, our homes. We even carry electronic screens in our pockets and purses.

Babies now even have their own TV channels and DVDs. But is TV good for babies? The American Academy of Pediatrics recommends that children under age 2 shouldn't watch any TV. Trying to enforce this can be confusing and challenging.

TV and tots

The truth is that you need to be careful about how much time your baby spends in front of TV and other electronic screens. Why? Because researchers don't fully understand what screen time does to a baby's growing brain and body. And what they do know is worrisome.

Babies and toddlers who watch more TV tend to have more problems paying attention later on. They are more likely to have weight problems and struggle in school. And they are already learning habits that will stick with them for a long time. This is true even if they are watching programs that seem educational.

What do children really need?

Your baby needs so much more than TV, videos, and computers can give. He needs people who love him, play with him, talk to him, and respond to him. Even the best TV show doesn't do a very good job with that.

In your baby's first years, his brain is growing very quickly. He needs to use all five senses. The brain is like a muscle. When he interacts with real people and real objects, the connections in his brain get stronger.

Time in front of an electronic screen means less time to explore the world. And it usually means less time in conversation about the world.

So it isn't surprising that babies who watch more TV and videos end up knowing fewer words.

What can parents do?

Make sure technology doesn't take over. You may feel like TV is a good learning tool. Your baby may seem

to love TV. But babies prefer the real thing. When given the choice between looking at a real toy or a TV image of a toy, babies and toddlers almost always choose the real one. And they learn a lot more from real play.

Here are some specific things you can do:

1. **Think about your own TV and technology habits.** Is the TV always on? Are you always looking at your cell phone or computer? If the whole family has a healthy relationship with media, so will your baby. Websites like www.common sense media.org can help you check out programs ahead of time and plan a family media agreement.
2. **Watch your program when the baby is sleeping.** When the TV is on, you tend to talk less to each other and to your baby. Many programs, even ones older children may enjoy, are not good for your baby.
3. **Make some rooms in your home technology-free.** If there are



Toddlers Need a TV Guide – YOU!

By the time they are 2, most children have been watching TV for a while. Their lives are filled with all kinds of electronic screens: computers, video games, DVD players in the car.

Your young child needs lots of time away from screens playing, exploring, and learning. It is never too early to start teaching her how to have a healthy relationship with technology.

Do children need TV?

There is no evidence that your child gets any benefit from watching TV. She can often learn all the same things from real experiences. Pretend play, conversation with family members, and exploring the world safely are all important ways of encouraging healthy development.

Too much TV can hurt kids. When toddlers watch more TV, they often end up doing worse in school. They are less active and eat more junk food. For these reasons, TV and other screens should be a very small part of your child's day.

Can children learn something from TV?

Children often imitate what they see on it. This tells us that they can learn

something from TV. But it also means that your child should not watch things you don't want her to imitate.

For toddlers and preschoolers, short shows with good messages are best. Young children enjoy shows that encourage them to talk and solve problems.

But even with the best shows, your child learns less from TV than when things are presented "live." Your child needs to build connections in her brain by actively exploring.

Watching TV is a passive activity that is highly habit-forming. Going on a "smelling hunt" through a park filled with flowers is much better for her than looking at that same park on a screen.

Spend less time with screens

- > Everyone talks less when the TV is on. Children play less actively, even if they don't seem to be paying attention to it.
- > Keep TV time for toddlers and preschoolers to one hour or less a day. Total screen time – including

TV, computer, and video games – should be two hours or less.

- > Offer your toddler fun and constructive activities like reading, pretend play with kitchen props, or outside play.

These games will help your child's development in all areas. They also distract her from wanting to watch too much TV.

- > Only have the television on when someone is watching it. Avoid having it as background noise.

Plan what you watch

- > Give your child a choice of what to watch – within your guidelines. Websites like www.parentstv.org and www.common sense media.org can help you make good viewing decisions.
- > Choose shows for the youngest person in the room. Shows with a simple story line and a chance to talk and solve problems are best (like "Dora the Explorer").



Tracking Our Family's Screen Time

Does it feel that your family members spend a lot of time with screens? This chart can be a problem-solving tool as your family works to cut down on TV and device time.

Have each member of the household fill out this chart or fill it out with young children. At the end of the week, divide each person's total for the week by seven to get the average hours per day.

Do you feel the number is too high? Talk about it with your family. Set goals for lowering it.

Day of the week	TV screen time	Device time	Computer screen time	Daily total	Comments
1.					
2.					
3.					
4.					
5.					
6.					
7.					
	(TV, DVDs, videos, movies)	(video games, mobile apps)	(not including work or homework)		



Balancing Play Time and Screen Time

Quality screen time in small doses is OK for young children. However, limiting your child's time in front of a TV, computer or electronic device allows him to spend more time playing and being creative.

Just like their parents, children are spending more time glued to screens. And it's happening earlier and earlier. For example, research has found that 80 percent of preschoolers watch TV every day. That's more than any other age group! This cuts into the time available for building their brains through free play.

However, reading a book with you, running outside or building with blocks teaches more than any app or children's show can.

Why you should watch how much they watch

Screen time can be an incredible and powerful educational tool when used right. Mobile games can build your child's hand-eye coordination. TV shows can open his mind to new interests and experiences. You can find many high-quality, educational mobile device applications that can introduce your child to new interests and build his language skills.

Savvy screen use

Goal	Getting started
Limit total screen time to one hour a day.	Include all forms of media: TV, mobile devices and video games. Factor any screen time your child has at his child care setting or school into this hour.
Allow plenty of time for active play.	Getting 60 minutes of physical activity each day helps your child look, feel and learn his best. It doesn't need to happen all at once. Add smaller chunks of active play time to your child's schedule.
Be an active viewer.	Child development experts recommend that screen time should be interactive. Join your child when he watches his favorite show to ask questions and engage his mind.
Choose smarter shows and apps.	CommonSenseMedia.org rates and reviews shows, games, books and apps for all ages. Use it to search for educational games for your child.
Avoid violent shows and games.	Children see 200,000 violent acts on TV by the time they are 18 years old. When you watch with your child, you'll know which shows and games to avoid.
Limit where he can have screen time.	Keep TV and devices out of your child's bedroom and playroom. Designate these rooms for free play.
Turn off your own screens.	Your child copies what he sees. If you're on your smartphone or computer all the time, he'll follow your lead. Show him how fun it is to read a book or kick around a ball.



Dealing With Distractions

The daily grind can wear down enthusiasm for communicating. After answering a million questions, you may crave the quiet of reading messages on your mobile device. Or your child may prefer screen play to talking with you after a busy day at school.

Distractions are a normal part of life. But it's harder to connect if you and your child don't regularly share undivided attention.

Your relationship is strongest when you spend time each day playing, reading, talking or relaxing together.

Experts suggest that you set a timer for daily, distraction-free play times. Maybe you can do five minutes. Maybe 30. The key is to make it a regular part of your routine so that your child comes to expect it.



REFLECTION

Take time to think about your child.

- > What devices are most distracting to your family?
- > What times of day do you feel most distracted?
- > How does your child show he needs your attention?



Find fun ways to remind your family when it's time for devices to "take a rest." For example, have your child make little beds for mobile devices. Or draw a sign for the TV with a sleeping face on one side and an awake face on the other. Explain that the TV can be on only when the awake side faces out.



Making the Most of Digital Play

Your child is surrounded by electronic toys and screens. Chances are good that you both enjoy some of the same games and applications! But your child does not watch and understand onscreen images like you do.

When you see something on a screen, you know whether or not it is real. But your child is still developing the skills and experiences to tell the difference. He needs your help as he learns.

Learning to use technology and understand the media is called **digital literacy**. Just as your child learns about the real world by playing with blocks and books, he learns about the digital world by watching and interacting with screens.

As you make decisions about your child's digital play, consider these "three Cs":

1. The **content** on the screen – What is your child watching or playing?
2. The **context** surrounding your child's use – What is happening while he watches or plays?

3. Your **child's** individual developmental needs – What benefit is he getting from watching or playing?

Setting a limit on screen time is a good idea. But it's even more important to keep an eye on what your child is doing during that time. Here are experts' tips for good digital learning experiences:

- > Check out your child's television shows, movies, computer software, apps and video games for appropriate content.
- > Use the ratings. Look for the EC (early childhood) or E (everyone) symbol when buying a new game. For movies, look for G (general audiences) or PG (parental guidance).
- > Keep electronic media out of your child's room.

- > Spend time with your child when he watches television and plays electronic games. Talk about the stories, characters and their actions and your reactions to them.



Many parents know the challenge of learning to use a computer. They want their child to be able to use many types of technology skillfully. Experts agree that digital literacy is an important skill for children to have.



Your Plugged-In Child

Your child learns from all her experiences. Electronics can help her learn how to tell reality from fantasy, solve problems and think logically. But the best way for her to learn is by interacting with other people and playing with low-tech toys.

Screens can be both entertaining and educational. They can:

- > Improve your child's visual-spatial skills.
- > Give her practice in problem solving and logic.
- > Increase her comfort with electronic technology
- > Help her practice in following directions.
- > Offer opportunities to learn new facts.

But it can be hard to tell where education ends and entertainment begins. For example, e-books with sounds and animation are fun. But they don't help your child learn like sharing a book with a real person does. Interactive sounds and animations can distract your child from the story.

Even an on-screen person who is reading (for example, on a video phone call) gives your child a better learning experience than e-books.

When it comes to games and software, many products are advertised as educational when they are simply drills. That kind of learning doesn't help your child learn creativity, original thinking and social skills.

At this age, your child's imagination, language abilities and motor skills are growing. She learns best through personal relationships and objects she can touch and manipulate. And she needs your guidance when she's using screens.

Just like blocks, books and balls, screens have a place in your child's life. With careful use and appropriate limits, they can give her fun opportunities for learning.



*Many parents know the challenge of learning to use a computer. They want their child to be able to use many types of technology skillfully. Experts agree that **digital literacy** is an important skill for children to have.*

Reflection

- What was your take away from today's presentation?
- What is a practical tip that you learned or were reminded of that you can now use with families?
- Any reflective thoughts you would like to share?
- Questions?



Thank You!

Thank you all for taking time to participate, share and expand your knowledge on the topic of technology and its impact on children and families.

