

Holiday Special

Sensory-friendly toys & gifts



Autism FILE™

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Providing Hope and Help for Autism Families

Holiday Treats

Gluten-Free
Casein-Free
Delicious!



EMFs

What you need to know
To keep your family safe

Mitochondrial Dysfunction and ASD
Latest treatment strategies

A BALANCING ACT

The good, the bad, and the ugly of living with advanced technology

BY DEIRDRE IMUS

Electronics are ubiquitous in our everyday lives. We rely on a range of handy devices to wake us up in the morning, make us coffee, dry our hair, communicate with friends and family, read books, and much, much more. In this day and age, it is nearly impossible to exist without these items. Given their reach into so many facets of our lives, it is also difficult (if not impossible) to consider how our phones, computers, televisions, and other gadgets might also affect our health.

This sounds ominous, but it is not meant to: there are plenty of ways we are better off and maybe even healthier because of technology's incredible advances. A number of mobile apps help users exercise more efficiently, track calorie intake to help with weight loss, or offer suggestions for healthy recipes. There are also personal activity tracking devices worn on the wrist that count steps and monitor sleep habits. Some apps are educational, helping children learn to read, do math, or organize their homework. These are good things.

TECH TALK

When it comes to our kids, we must be cautious about how, when, and to what extent we permit electronics to infiltrate their lives. It is inevitable, and for some parents it is scary. But it is also reality: a 2013 report by *Common Sense Media* found that 75 percent of



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Striking an appropriate balance between healthy and unhealthy use of these devices is difficult for any parent, but may pose an especially challenging situation for parents of ASD children.

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kids between zero and eight years old have access to mobile devices at home. Most of them are using smartphones, but tablet ownership is also popular, and on the rise.

The demand for such items surely intensifies around holiday time: the

Consumer Electronics Association predicted in October that U.S. consumers would spend \$33.8 billion on electronics this holiday season, the highest level since they began tracking this data in 1994. It is reasonable to assume that some share of these electronic devices will be going to children. That's a lot of money, and a lot of gadgets.

Which, for parents, means a lot of monitoring. Like all of us, kids are prone to bad habits, and electronics can be addictive. This is bad for their bodies, bad for their brains, and could have lasting negative implications, whether your child is on the autism spectrum or not. As with so many other aspects of their lives, we must gather and consider the information available to us, then use our instincts to guide us in the most sensible, least harmful direction.

Technology can be an invaluable tool for children with autism who have trouble communicating through traditional means, or holding conversations with other people. Just recently, the *New York Times* published an article written by Judith Newman, whose autistic teenage son formed a close relationship with Siri, the virtual "intelligent personal assistant" on Apple's iPhone. Chatting with Siri works for her son Gus, Newman explained, because Siri is nonjudgmental, kind, and will answer any question Gus tosses her way for hours on end. Newman observed that as a result of his talks with Siri, Gus has become more conversant with actual humans. Other children on the autism spectrum use mobile devices to literally help them communicate.

There are apps specifically geared toward children with autism who have severe communication disorders, many of them designed based on augmentative and alternative communication therapy, also called AAC. These apps allow nonverbal people to form sentences on the screen using icons or pictures, which experts note gives them a sense of

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control. This may result in fewer tantrums or other behavioral problems that sometimes occur when a child with autism cannot convey his or her frustrations.

The website www.iautism.info offers a comprehensive list of apps for smartphones and other devices that are geared specifically toward people on the autism spectrum. The apps are separated by category (“games,” “social behavior,” “eye contact,” etc.), and a short description accompanies each listing.

DEALING WITH DRAWBACKS

Yet for all the potential benefits of these electronics, there are of course some drawbacks, especially for kids with autism and their parents. In February 2013, researchers at the University of Missouri reported a possible link between access to television, computers, and video games and loss of sleep in boys with autism spectrum disorder. Children with ASD tend to have more sleep-related difficulties than their peers, and sleep deprivation can have negative effects on a person’s mood, attention span, and overall health, according to the American Academy of Sleep Medicine.

In an article earlier this year on *Psychology Today*’s website, psychiatrist Victoria Dunckley reviewed several studies on electronic usage and brain function. She concluded that excessive screen time impairs brain structure and function, and that this not-so-casual relationship should be especially worrisome for the still-developing brains of children.

What’s more, a 2013 study found that boys with autism or attention deficit hyperactivity disorder (ADHD) were at an increased risk for video game addiction. Experts have noted that part of the appeal of video games for kids on the autism spectrum is the consistency of the platform—they know what to expect. Video games also offer an outlet for these boys, many of whom have trouble relating to their peers.

Striking an appropriate balance between healthy and unhealthy use of



these devices is difficult for any parent, but may pose an especially challenging situation for parents of ASD children. Establish limits early on for how long a child can play a video game, watch a television show, or use the internet. Stick with these parameters, even if tempers flare. If you think such activities benefit your child on the autism spectrum, talk to his or her doctor or teacher about devising a practical schedule for media use.

HEALTH IMPLICATIONS

Regardless of which electronics your family enjoys most, remember: computers, smartphones, and tablets are all wireless devices, and such items emit radiofrequency (RF) radiation. As noted on the U.S. Centers for Disease Control website, RF radiation has been classified as a “possible human carcinogen” by the International Agency for Research on Cancer. The World Health Organization states that several studies looking at the long-term effects of RF radiation on human health are ongoing, and that no direct relationship has yet been established between the two.

Yet in its *Guide to Safer Cell Phone Use*, the Environmental Working Group (EWG), a nonprofit organization dedicated to protecting human health and the environment, highlights research from UCLA that linked cell phone exposure during pregnancy and after birth with behavioral

problems in young children. Following a comprehensive review of published literature, EWG also found that cell phone radiation can produce changes in sperm. How such changes might affect the DNA of a developing fetus remains unknown, but is something to consider. Always keep electronics (especially phones) out of baby’s reach, and mouth, as they often contain flame retardants and heavy metals.

Environmental Health Trust has some excellent safety tips for families at www.ehtrust.org, as well as a dedicated site for pregnant moms at <http://www.babysafeproject.org/>.

Cell phones, smartphones, tablets, computers, television, video games—none are disappearing any time soon. We must consider their influence in our children’s lives (and our own!) as much as we would a new friend or teacher.

Though electronics are at times a nuisance, they are also, for some kids on the autism spectrum, a lifeline and a connection to someone or something for the very first time. This force should not be denied, even if it cannot be understood. With helpful—and healthy—boundaries, electronics can be an essential part of a child’s growth and understanding of his or her world. ◀

Note: Information provided herein is not intended to treat or diagnose any health condition. As always, consult your healthcare provider with any questions or health concerns.