

TABLET AND PHONE USAGE FOR OUR TODDLERS CAUSING AN EPIDEMIC OF VISION PROBLEMS

By Louella Varney founder of Vision Potential



Leading Behavioural Optometrist and founder of Vision Potential is finding 'The use of Tablet and phones before the age of five is causing a tornado of vision problems'. "By the time a child reaches school age, the implications for Vision problems and learning can lead to children with a multiple of vision problems. It is set to worsen as more and more children spend more time with screen time.

A recent study by the Australian Institute of family studies found that toddlers and preschoolers are hooked on devices with children spending too long on screens when they start school and by their early teens, 64 per cent of 12-13 year olds are spending considerably more than the Australian Government's daily recommended screen time for entertainment¹.

The implications being:

1. Problems with children scanning their eyes across the page when reading, leading to issues with left to right eye movement control affecting reading to learn, learning to read and perhaps even reading fluency
2. When children are staring at a screen they are not using their accommodation or focusing skills properly leading to issues with focusing and concentrating at school making it more difficult to learn
3. An epidemic of shortsightedness or Myopia in children

The issues that arise with Preschool electronic usage are:

1. The increased usage of Tablets and Phones lead to less scanning of the environment and looking further away and less left to right scanning that is required to read across the page involved in reading and learning to read. The implications are that your child may not have the visual skills to learn to read fluently or learn to read or being able to read to learn. The end result is a drop in grades and becoming very frustrated with school and schoolwork
2. Due to staring at a screen, children do not learn to change their focus from one object to another or from the desk to the whiteboard required for learning when they start school. For good learning and reading our child's eyes are required to work automatically like the autofocus of a camera. They may lack this skill if too much time is spent on the Tablet as an infant as their accommodation or focus skills do not develop properly
3. The latest study has linked Myopia or shortsightedness with not enough time spent outdoors.
4. Sleep patterns can be affected. Blue light from the devices disrupts the body's production of melatonin (the hormone that regulates their sleep-wake cycle) which kids need to fall asleep quickly and easily. A lack of sleep leads to less ability to concentrate and learn at school
5. Postural issues can arise. These are becoming more prevalent in teenagers.
6. In my clinic I am seeing more and more children with an increase in visual stress, and light sensitivity which may or may not be linked to Tablet use.
7. Dry eye issues leading to sore and fatigued eyes due to decreased blinking when looking at devices.
8. There is some evidence for Blue lights from the tablets being linked to Macular degeneration and early onset of cataractsⁱⁱ. The former causes blindness in later age. The blue light in younger eyes is more easily transferred to the retina making them more susceptible to these conditions.



“We want to embrace technology for our learning, however the way that it is used will have significant role on effects”.

Statistics of Myopia or Shortsightedness

Currently there are approximately 4 million people that are Myopic in Australia. By the year 2050, this is estimated that this will increase to 22 million. Which is a concerning number!!The figure is even greater in Asia.

Long periods of near vision, particularly at a young age, has in the past been linked with an increase in the degree of short-sightedness.

However, more recently Myopia progression has been linked to not enough time outdoorsⁱⁱⁱ. ‘Either way directly or indirectly an association is there’ says Louella Varney

Implications for shortsightedness or myopia is vast. Just a few areas include: eye pathology, progression of Myopia (where the distance becomes more and more blurry), stronger and stronger glasses.

Other implications

1. Children used to play outside and climb, build, pretend and explore. Our visual systems do not develop like they used to, and this affects our ability to scan, track, jump from one line to another and pretend and visualize at younger ages. These skills may not develop.
2. Younger eyes need to develop and learn these skills by exploring the environment, looking near and far, playing with objects, building things, and colouring in. If children do not use or develop these skills, they are not able to be ready for school and the processes that are required with our vision to learn.
3. Ability to concentrate at school may be also affected. If our children cannot go without some sort of device to occupy them how can they listen and concentrate at school.

Recommendations

Louella Varney says “Monitor the time spent on the screens with little ones. As adults we are using screens more and more in everyday life. Most work places are set up ergonomically, with computers at work, there maybe a couple of screens and you shift your focus or accommodation from one to another.

With little ones the visual systems are not developed. A good rule of thumb is under 18 months- avoid screen time for good vision development. Infants need eye contact with parents for development.

For children between 2 to 5 years – no more than one hour per day with adult supervision.

Good posture is important. Have your child sit upright with the Tablet or phone in front of them and a good distance away. The closer the Tablet and phone, the greater the incidence of blue light and the more visual fatigue.

About the Author

Louella Varney is founder of Vision Potential and an authority integrating Behavioural optometry and a child's potential. She has spent the last 20 years helping children excel at school.

For more information and guidelines on Screen time for correct development of your child's vision please [click on this link](#) or contact Vision Potential on 0738001988



ⁱ <https://growingupinaustralia.gov.au/sites/default/files/asr2015.pdf>

ⁱⁱ <https://www.dailytelegraph.com.au>

ⁱⁱⁱ www.abc.net.au/news/2015-07-10/lack-time-outdoors-more-ipad