



WE NEED TOTALK

Screen time in
New Zealand

*MEDIA USE:
An emerging factor in
child and adolescent health*

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Report to Family First New Zealand 2015



Executive Summary

New Zealand is blessed with an ideal environment for children and young people to be active and, compared to many other countries, they are. However, this is changing rapidly. Following a global trend, children from infancy are spending greater amounts of time looking at recreational screen media and becoming increasingly sedentary (NIHL 2014).

Discretionary screen time (DST), defined as non-homework and predominantly recreational, is now *the* main waking activity of children – a lifestyle factor as relevant to health and wellbeing as nutrition and physical activity. High discretionary screen time is increasingly considered an independent risk factor, often exhibiting a dose-response relationship with cardiometabolic disease, psychological problems, unfavourable child development outcomes and adult illness and mortality, ultimately placing greater pressure on health services.

Although screen technology may be a beneficial aspect of modern life, there is growing concern from health and development experts about the disproportionate use in many families' lives, particularly the young in New Zealand. The main focus of recent medical concern is the premature use and/or overuse of discretionary screen media in children, as their brains and bodies are not yet fully developed. Interventions therefore emphasise delaying the introduction of screen media to very young children and reducing its excessive discretionary use in all children and adults. As a 'disease prevention objective', government health departments and medical associations are increasingly issuing guidelines for daily discretionary screen time 'consumption'.

Yet parents, children and teachers remain unaware of the medical and developmental risks and the position of medical bodies on DST. And the majority of children and adolescents in New Zealand, including toddlers, continue to significantly exceed medical guidelines. Much of the concern regarding screen media is based on the average number of hours a day children spend watching non-homework screen media, now often referred to as the 'dose' of screen media 'consumed'. Reading books on Kindle or a tablet is not the concern under discussion.

This report provides an overview of some of the evidence which has led health authorities to issue precautionary discretionary screen time guidelines:

- The age at which children start viewing screens and the number of hours watched per day are increasingly linked to negative physiological changes, medical conditions and development outcomes. There appears to be a 'dose-response relationship' with more hours per day linked to a greater likelihood that negative findings will appear, often years later, in the child.
- Excessive discretionary screen time is linked with:
 - Significant sleep disturbances.
 - Unhealthy levels of key chemicals ('biomarkers') associated with illness and premature death.
 - Alterations in stress hormones.
 - Unhealthy body composition, including elevated levels of body fat and obesity.
 - Increased risk of diabetes.
 - A decline in muscular strength and stamina.
 - A reduction in social skills including the ability to read human emotion and cultivate empathy. Brain areas associated with these functions may become under-stimulated and fail to develop appropriately.
- High levels of computer game screen time are associated with subsequent attention problems and impulsiveness.

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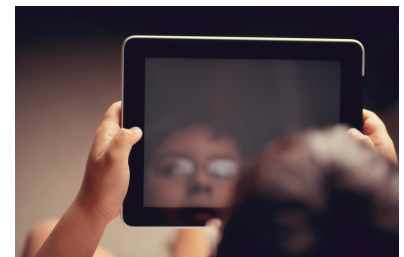
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- Research has identified a 'dose-response' relationship between DST and psychosocial health, where each additional hour viewing increases the likelihood of experiencing socio-emotional problems.
- High levels of social networking have been associated with a decline in mood and increased risk of depression.
- A decline in face-to-face family interaction may compromise relationships and the development of social skills: "No matter how time online is measured and no matter which type of social activity is considered, time spent on the Internet reduces time spent in face-to-face relationships... an hour on the Internet reduces face-to-face time with family by close to twenty-four minutes" (Nie NH et al 2008).
- There appear to be biological processes activated during face-to-face interaction that do not operate sufficiently when communicating through social networking / messaging.
- Although this report is concerned with screen *time*, when one includes screen *content*, the distorting effect on the parental role in imparting their own values and providing boundaries for children could be considerable.
- Background 'passive' media that is not being actively viewed by the child is increasingly associated with developmental risks.
- The term 'addiction' is increasingly used by health professionals to describe the growing number of children engaging in a variety of screen activities in a dependent, problematic manner. It is a problem that is likely to increase among children and adolescents.
- A new generation of studies is finding associations between Internet Addiction Disorder / 'gaming addiction' and abnormal brain tissue and brain function. Although these neurological characteristics may be a precondition rather than a consequence of addiction, child health policy must adhere to the principle of precaution.
- Children are more susceptible to developing a long-term problematic dependency on technology. The age of initiation and level of exposure to, for example, gaming may increase this risk, which may start much earlier than assumed.
- Parental role modelling is a highly important factor: parents who consume high DST have children who are many times more likely to consume high DST.
- Babies and toddlers should learn from play, not screens. 80 per cent of adult brain size growth occurs during a child's first three years, when they may be most vulnerable to the potential effects of screen media. Furthermore, it is imperative that significant periods of time, when infants and toddlers could be learning about the people and things around them and the sensations within them, are not displaced by screen time.
- The amount of DST an older adolescent consumes during their spare private time is negatively associated with academic outcomes.
- The associations between DST and health occur generally beyond two hours per day, yet the average child is exposed to 2 - 4 times this amount. Therefore, reducing total daily DST for children could provide significant advantages for children's health and well-being.

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- There is good evidence that children's DST can be reduced partly through raising parental awareness and by parents incorporating screen rules into family life:
 - Minimising screen media in children's bedrooms is likely to reduce DST significantly.
 - Involving children in more physical activity is associated with a subsequent reduction in DST.
 - Parental rules on DST have longer-term implications for child health.
 - Mothers who monitor their child's DST early on may have children with a healthier body mass index years later.
- Most importantly, children from an early age must be helped to develop an awareness of discretionary screen time as a health and development issue and to cultivate healthier media consumption habits.
- Health professionals in New Zealand should consider incorporating the topic of media use and health into their dealings with families.
- A lack of action to limit DST is due to the plethora of mixed messages regarding the costs and benefits of DST and a preoccupation with the *content* of screen media without due consideration for the sheer *amount* of habitual consumption. Moreover, there is an implicit and entirely unsubstantiated message that not to expose young children to screen technology puts them at a developmental and educational disadvantage.
- In making personal, family and policy decisions about DST, there is a paucity of readily available objective information. Public discussion of screen media and children is dominated by experts in media studies and 'e-learning'.
- In future, policy makers should, to the best of their ability, excise the influence of the screen-related industries. When considering any evidence on child screen use presented to them, policy makers should be highly vigilant in ensuring a high degree of 'information hygiene' and establish whether screen-related industries have played any part in such research.
- In other areas of child health and development, when considering the potential effects of profound new developments, society instinctively adopts a principle of precaution. Yet, to date, the increasingly excessive levels of child DST have been met with a lack of emphatic health messages. In particular, the absence of any official guidance on DST for the most vulnerable population - babies and all children under age five - is of great concern.
- Of additional concern is the Ministry of Health's statement that it "*has not provided any guidelines regarding the amounts of screen time recommended for those aged 18 and over*" (NZMOH 2014).
- The Ministry of Health should consider DST as a personal health and well-being issue to be formally included in the health education curriculum and taught in the classroom from primary school.

Public health and child wellbeing would benefit significantly if government became more vocal over the issue of excessive DST. Medical bodies and government ministries should formally and vociferously express concern over DST. Moreover, they must concern themselves not with what families and voters are *interested* in hearing but what is in their children's best interests.

New Zealand is in an advantageous position from which to confront excessive DST by adopting preemptive measures and challenging some of the key causes now.

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