



" Les jeunes et les écrans - la montagne accouche d'une souris ou d'une boule de neige? "

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Infirmière (1983-1997)

Psychologue (1991-)

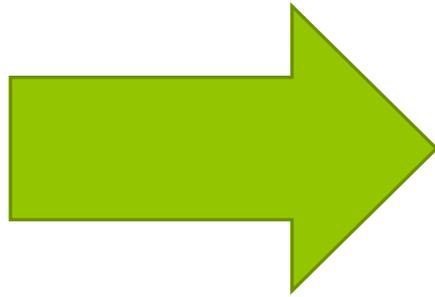
Parent

**Mini conférence du 13 juin 2023**

**Grand forum des partenaires du  
ministère de la Famille**



# Mon travail



# les habitudes d'écran et le bien-être psychosocial



La famille et les écrans: un passe-temps caractérisé par l'isolement et la sédentarité intellectuelle et physique.



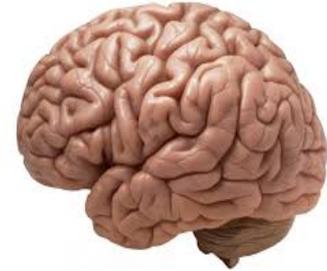


# Les lignes directrices internationales

- L'AAP recommande aucune exposition à la *télé avant 2 ans*, un maximum de 1h par jour entre 2 et 5 ans et un maximum de 2h par jour après 6 ans.
- Seulement 30% des parents connaissent les recommandations de l'AAP.
- Les parents laissent leurs enfants regarder la télé, car ils pensent que c'est bénéfique pour le développement psychosocial.
- Il y a d'autres activités plus appropriées pour les enfants pendant la période critique de 0 à 5 ans.



# Plasticité positive

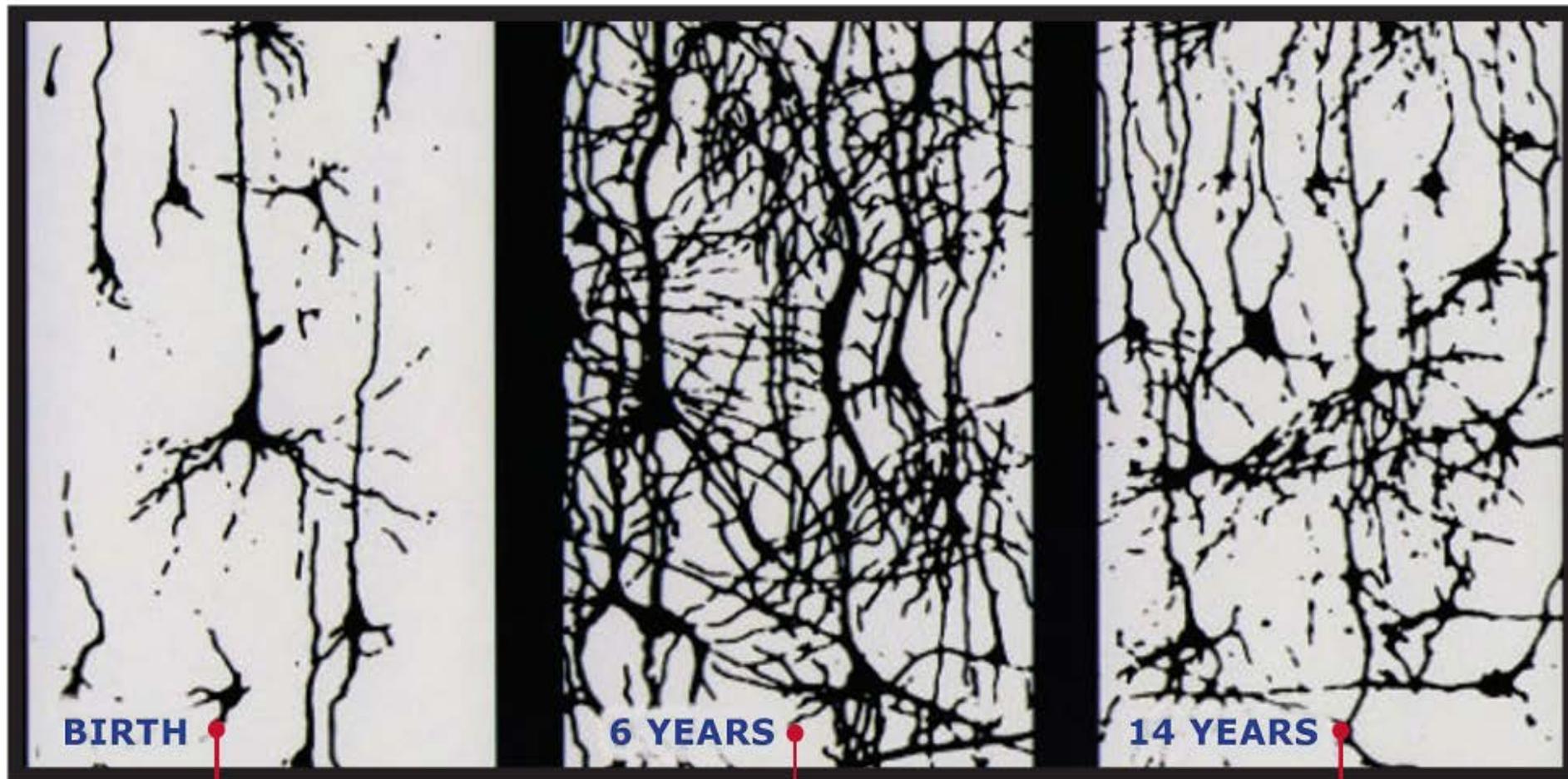


- La gestation chez l'humain devrait s'échelonner sur 75 semaines plutôt que 40 semaines.
- La taille du cerveau des nouveau-nés triple en 24 mois, passant de 333 g à près d'un Kg.
- Il y a une belle période de construction de synapses en petite enfance.
- Cette période d'expansion exubérante est suivie par un élagage synaptique.



# CORE CONCEPTS IN THE SCIENCE OF EARLY CHILDHOOD DEVELOPMENT

Experience Shapes Brain Architecture by Over-Production of Connections Followed by Pruning



2

*Neural proliferation and pruning is a normal, healthy part of brain development: connections that are not used are pruned away.*

The basic architecture of the brain is constructed through an ongoing process that begins before birth and continues into adulthood. During the first few years of life, 700 new synapses (neural connections) are formed every second. After a period of rapid proliferation, connections are reduced through a process called pruning, so that brain circuits can become more efficient. Early experiences affect the nature and quality of the brain's developing architecture by determining which circuits are reinforced and which are pruned through lack of use. Some people refer to this as "use it or lose it." *Graphic Source: Chugani, H.T. Synaptic Density. [Drawing]. In R. Shore, Rethinking the Brain: New Insights into Early Development (p. 20). New York: Families and Work Institute, 1997.*



# Élagage Neurosynaptique

- La croissance et le développement sont des processus se réalisant en interaction directe avec des objets, d'évènements et d'autres êtres vivants présents dans l'environnement.
- Les habitudes sédentaires prédisent de faibles habiletés psychomotrices.
- Les faibles habiletés psychomotrices prédisent des comportements sédentaires ultérieurs.



# Les habitudes de vie commencent en petite enfance

- Les jeunes enfants sont exposés à la télé en moyenne 3-4h/jour (maison et milieu de garde).
- Ceci signifie que les enfants de moins de 2 ans (éveillés environs 10 à 12h/jour) passent 30-40% de leur journée/soirée devant un téléviseur.
- Approximativement 30 % des enfants d'âge préscolaire ont un téléviseur dans leurs chambres. Ceci grimpe à 75 % chez les adolescents.
- 30 % des parents rapportent que leurs enfants écoutent la télé pendant la semaine.
- Manger son petit-déjeuner ou son dîner devant un téléviseur de façon hebdomadaire est associé à une augmentation du nombre d'heures d'exposition à la télé.
- Le temps d'exposition durant les repas augmente avec l'âge des enfants.





# Prospective Associations Between Early Childhood Television Exposure and Academic, Psychosocial, and Physical Well-being by Middle Childhood

Linda S. Pagani, PhD; Caroline Fitzpatrick, MA; Tracie A. Barnett, PhD; Eric Dubow, PhD

**Objective:** To estimate the influence of early childhood television exposure on fourth-grade academic, psychosocial, and lifestyle characteristics.

**Design:** Prospective longitudinal study.

**Setting:** Institut de la Statistique du Québec, Québec, Canada.

**Participants:** A total of 1314 (of 2120) children

**Main Exposure:** Parent-reported data on weekly hours of television exposure at 29 and 53 months of age. We conducted a series of ordinary least-squares regressions in which children's academic, psychosocial, and lifestyle characteristics are linearly regressed on early and preschool television exposure.

**Outcome Measures:** Parent and teacher reports of academic, psychosocial, and health behaviors and body mass index measurements (calculated as weight in kilograms divided by height in meters squared) at 10 years of age.

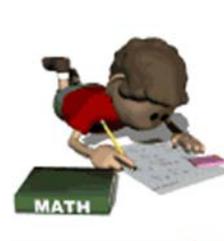
**Results:** Adjusting for preexisting individual and family factors, every additional hour of television exposure at 29 months corresponded to 7% and 6% unit decreases in classroom engagement (95% confidence interval [CI], -0.02 to -0.004) and math achievement (95% CI, -0.03 to 0.01), respectively; 10% unit increases in victimization by classmates (95% CI, 0.01 to 0.05); 13% unit decreases in time spent doing weekend physical activity (95% CI, 0.81 to 2.25); 9% unit decreases in activities involving physical effort (95% CI, -0.04 to 0.00); higher consumption scores for soft drinks and snacks by 9% and 10% (95% CI, 0.00 to 0.04 and 95% CI, 0.00 to 0.02), respectively; and 5% unit increases in body mass index (95% CI, 0.01 to 0.05). Preschool increments in exposure also made a unique contribution to developmental risk.

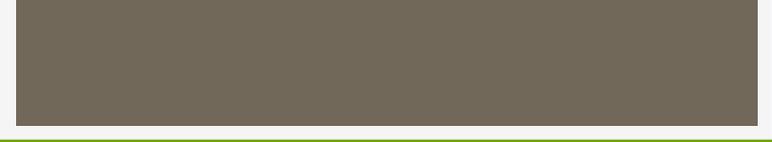
**Conclusions:** The long-term risks associated with higher levels of early exposure may chart developmental pathways toward unhealthy dispositions in adolescence. A population-level understanding of such risks remains essential for promoting child development.

*Arch Pediatr Adolesc Med.* 2010;164(5):425-431

# L'objectif

- De voir si les habitudes télévisuelles prédisent le bien-être, la préparation pour la maternelle et la réussite scolaire ultérieure.

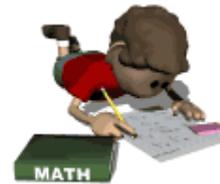




2 ans



5 ans





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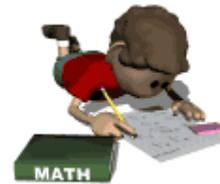
JAMA  
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ADOLESCENT MEDICINE

2 ans



En contrôlant pour des  
explications  
alternatives

10 ans





## Prospective associations between toddler televisioning and subsequent lifestyle habits in adolescence<sup>☆</sup>

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### ARTICLE INFO

#### Keywords:

Toddler  
Watching television  
Toddler televisioning  
Lifestyle  
Sedentary

### ABSTRACT

**Background:** Watching television is a common pastime for very young children. High exposure may negatively influence physical and mental health outcomes. Not much is known about how early exposure relates to lifestyle choices in adolescence.

**Objective:** To estimate how toddler televisioning is subsequently associated with lifestyle indicators at adolescence.

**Methods:** Participants are 986 girls and 999 boys from the Quebec Longitudinal Study of Child Development birth cohort (Canada). Child self-reports lifestyle habits at age 13 that were linearly regressed on parent-reported televisioning at age 2 while adjusting for potential confounders.

**Results:** Every 1 h 13 m increase in daily televisioning was prospectively associated with a 8.2% increased risk of unhealthy eating habits (unstandardized  $b = 0.05$ ; 95% CI, 0.02 to 0.07), 10.1% decrease in eating breakfast on weekdays (unstandardized  $b = -0.06$ ; 95% CI,  $-0.09$  to  $-0.04$ ), 13.3% increase in BMI (unstandardized  $b = 0.38$ ; 95% CI, 0.26 to 0.50), 4.7% decrease in student engagement (unstandardized  $b = -0.07$ ; 95% CI,  $-0.14$  to  $-0.004$ ), and 5.8% increase in concurrent screen time (unstandardized  $b = 0.06$ ; 95% CI, 0.02 to 0.11). Post hoc simulations of noncompliance with AAP recommendations support their implementation.

**Conclusions:** Excessive toddlerhood televisioning was prospectively associated with less optimal health and self-invested behavioral dispositions. Lifestyle habits not only affect metabolic risk but may also influence personal success outcomes. These independent relationships, observed more than a decade later, suggest a need for better parental awareness of the way children invest their limited waking hours could affect their long-term life course trajectories.



2 ans



En contrôlant pour des explications alternatives

13 ans





## POPULATION STUDY ARTICLE

# Prospective associations between television in the preschool bedroom and later bio-psycho-social risks

Linda S. Pagani<sup>1</sup>, Marie Josée Harbec<sup>2</sup> and Tracie A. Barnett<sup>3</sup>

**BACKGROUND:** North American child media guidelines suggest screen-free zones without offering clear evidence and alternative harm-reduction strategies. Our hypothesis is that having a bedroom television during the preschool years will be prospectively associated with mental and physical health risks in adolescence.

**METHODS:** Participants are from a prospective-longitudinal birth cohort of 907 girls and 952 boys from the Quebec Longitudinal Study of Child Development. Child outcomes at ages 12 and 13, measured by multiple sources, were linearly regressed on having a bedroom television at age 4.

**RESULTS:** Bedroom television at age 4 predicted a higher body mass index at age 12 (standardized  $B = 0.10$ ,  $p < 0.001$ ), more unhealthy eating habits at age 13 ( $B = 0.10$ ,  $p < 0.001$ ), higher levels of emotional distress ( $B = 0.12$ ,  $p < 0.001$ ), depressive symptoms ( $B = 0.08$ ,  $p < 0.001$ ), victimization ( $B = 0.07$ ,  $p < 0.001$ ), physical aggression ( $B = 0.09$ ,  $p < 0.001$ ), and lowers levels of sociability ( $B = -0.09$ ,  $p < 0.001$ ) at age 12, above and beyond pre-existing individual and family factors.

**CONCLUSION:** The bedroom as a screen-based preschool zone does not bode well for long-term cardio-metabolic wellness, mental health, and social relationships.

*Pediatric Research* \_#####\_; <https://doi.org/10.1038/s41390-018-0265-8>

# L'objectif

- Revoir si les habitudes télévisuelles prédisent le bien-être psychosocial ultérieure, indiqué par les relations avec les pairs.





Habitudes  
télévisuelles  
en bas âge  
(24 m)



Observations de  
victimisation par  
l'enseignant lors  
de la maternelle



Observations de  
victimisation par  
l'enseignant en  
fin de 4<sup>e</sup> année

**Programme de  
recherche sur les  
écrans en bas âge.**  
*Données provenant  
de l'échantillon  
ELDEQ, nés en  
1997-1998*



Expériences de  
victimisation  
auto révélées à  
12 et 13 ans

## "L'habitude télévisuelle à la petite enfance : facteur de stimulation ou facteur de risque pour le bien-être à long terme?"

La petite enfance est une période cruciale en termes de développement.

Les enfants qui regardent trop la télé au cours de leur petite enfance sont plus aptes à développer des risques bio-psycho-sociaux à long terme.

Pour soutenir ces affirmations, je me suis basée sur des observations de 2 000 enfants nés au Québec en 1997 et 1998.

Certes, les émissions éducatives peuvent entraîner des effets positifs quand elles sont regardées avec modération (entre 1 à 2 heures par jour).

Les recommandations de AAP assument que le contenu visionné est approprié pour l'âge et le niveau de développement.

# Remerciement

- *Je vis sur le territoire traditionnel et non cédé des Premières nations du Canada. Ils sont les gardiens traditionnels et actuels indéniables de cette terre. Il s'agit des Algonquins, des Cris, des Naskapis, des Mohawks, des Innus, des Mi'kmaq, des Wolastoqiyik, des Abénaquis, des Anishinaabe et des Atikamekw. Leurs terres me nourrissent, moi et mes proches. Je suis résidente non invitée reconnaissante vivant sur la terre Haudenosaunee.*