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Saturday, June 10, 2017

(Room 4)

14:00 - 14:55 WS #145: How GPs can Help Kids Grow Healthy Brains

15:05 - 16:00 WS #157: How GPs can Help Kids Grow Healthy Brains
(Repeated)



**Tuhia ki te rangi
Tuhia ki te whenua
Tuhia ki te nga kau
Ko te mea nui
Ko te aroha
Tihei Mauri Ora**

***Write it in the sky
Write it in the land
Write it in the heart of the people
The greatest thing is love
Behold there is life***



Whakamana Te Tamaiti

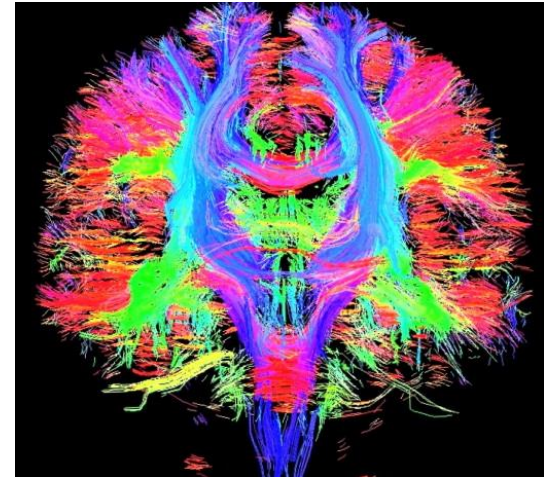
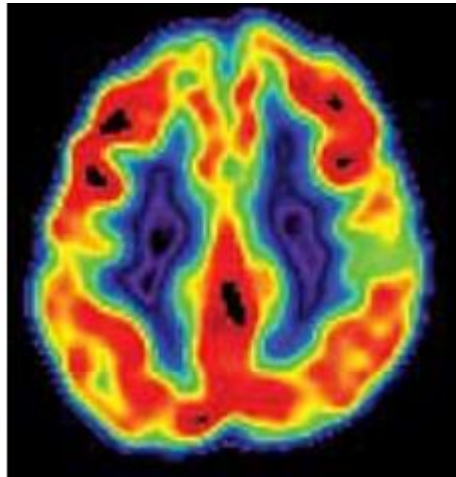
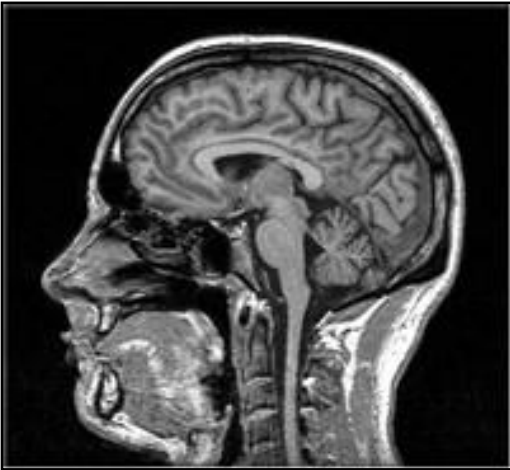
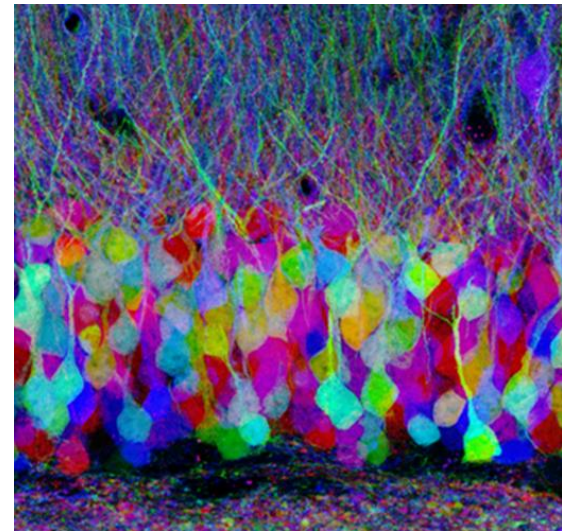
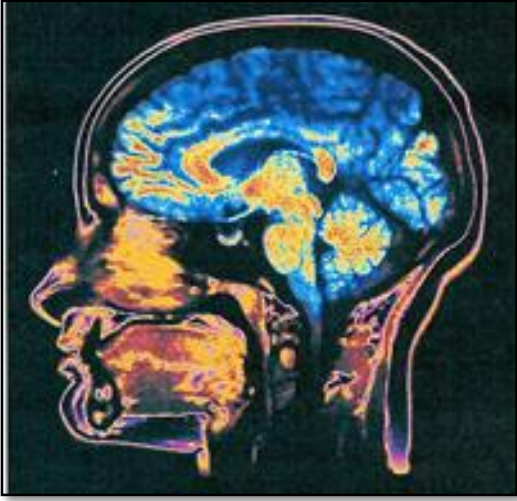
Early Years Last Forever



Key points

- **First 3 years are critical –foundation**
- **Brain growth depends on experience**
- **Most important thing for healthy brain development:
Responsive nurture**
- **Intervene/Refer early**

The Evidence



Reference: Gilkerson & Klein (2008).



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Lifetime effects

Number of Adverse Childhood Events



Abuse

- physical
- psychological
- sexual



Neglect

- emotional
- physical

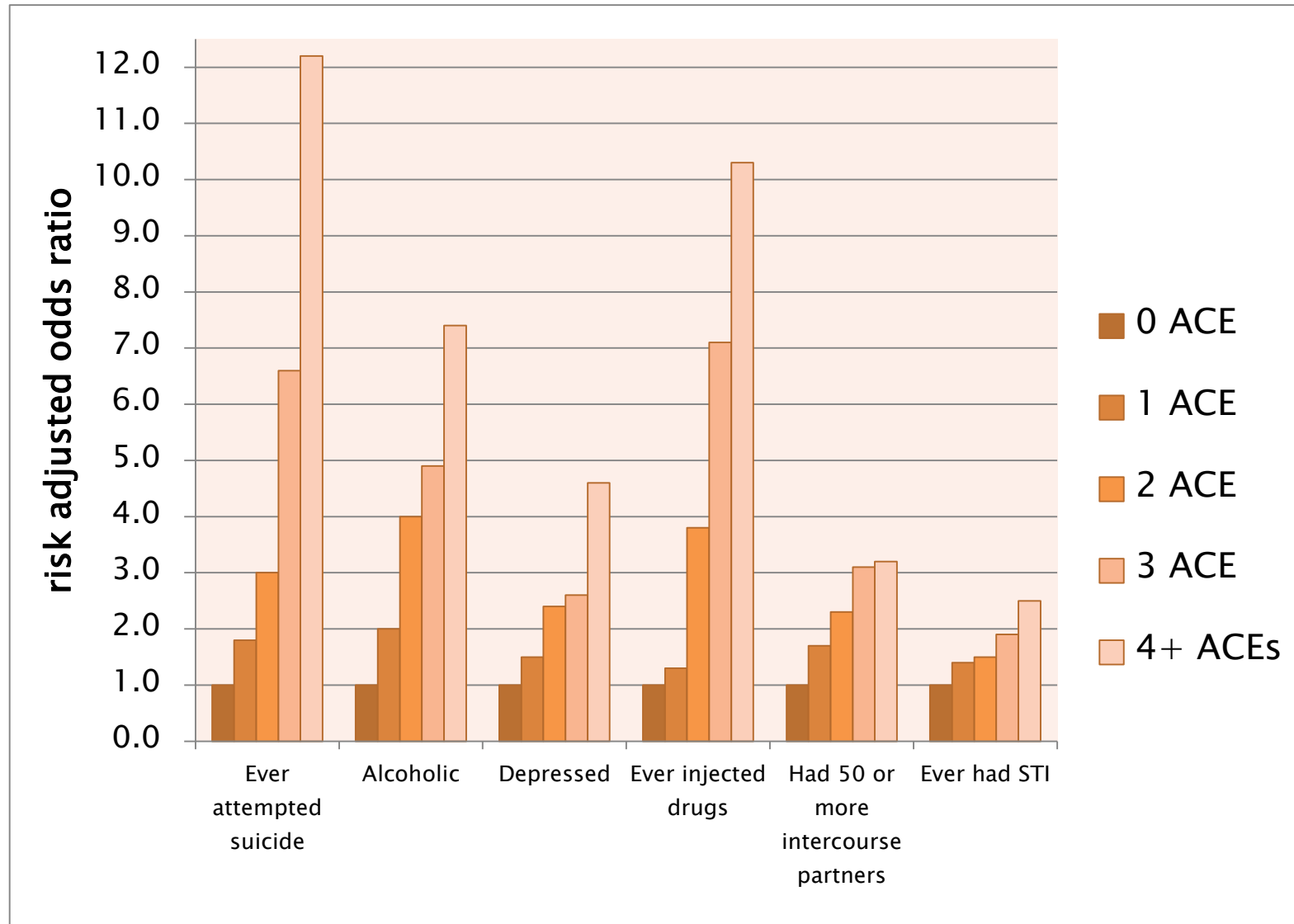


Household Dysfunction

- Alcohol & drug abuse
- Mental illness
- Violence towards mother/stepmother
- Parental separation/divorce
- Criminal behaviour



ACE – risk poor outcomes

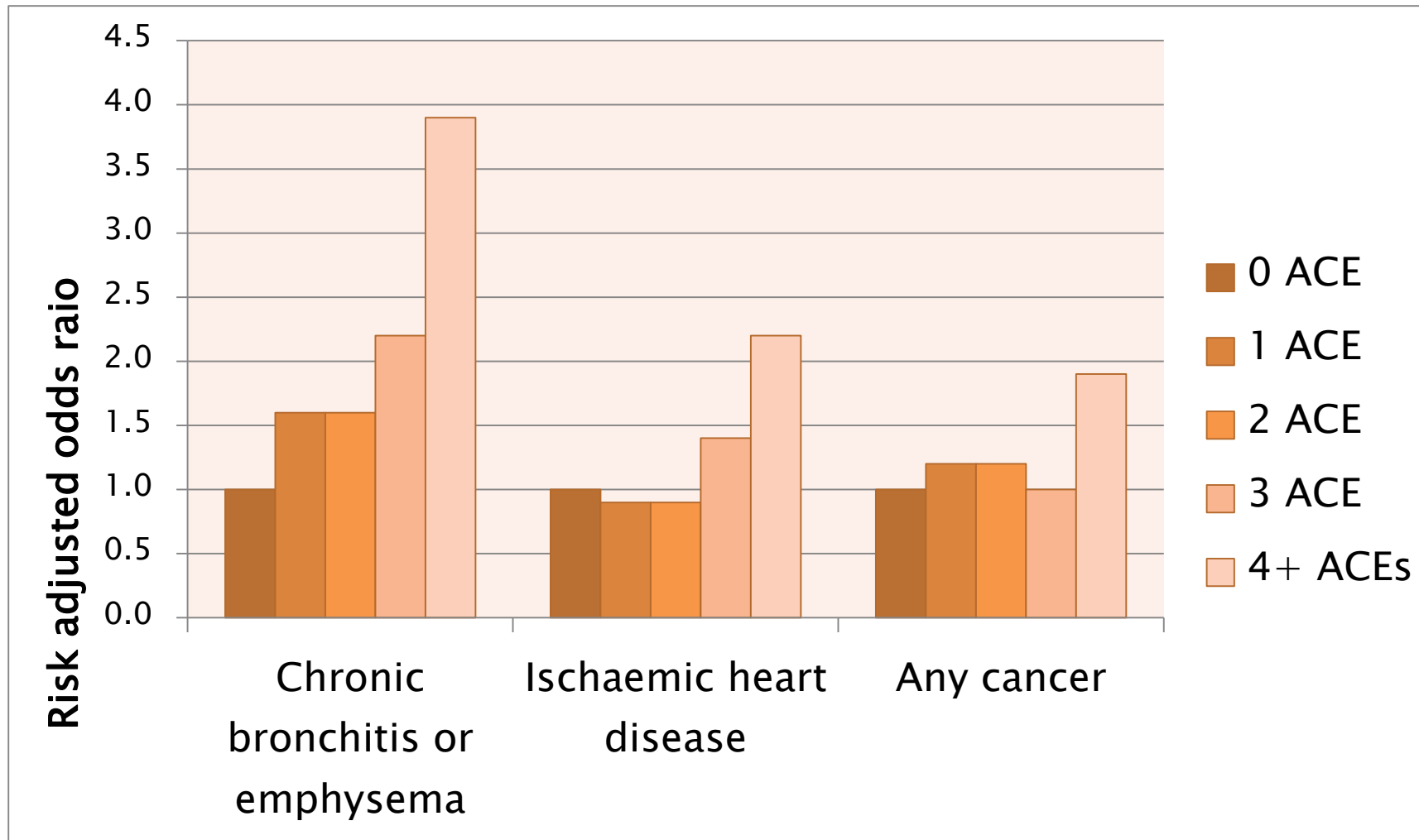


Reference: Felitti et al (1998), Hillis et al (2001).

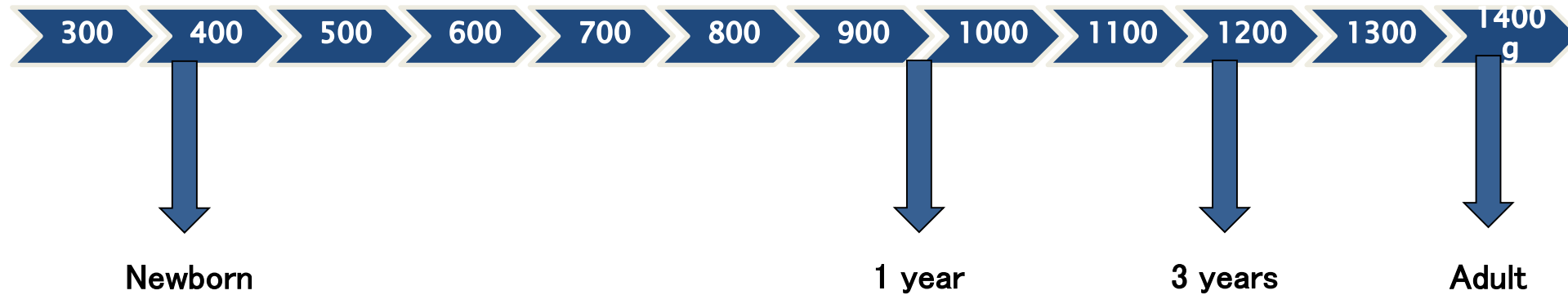


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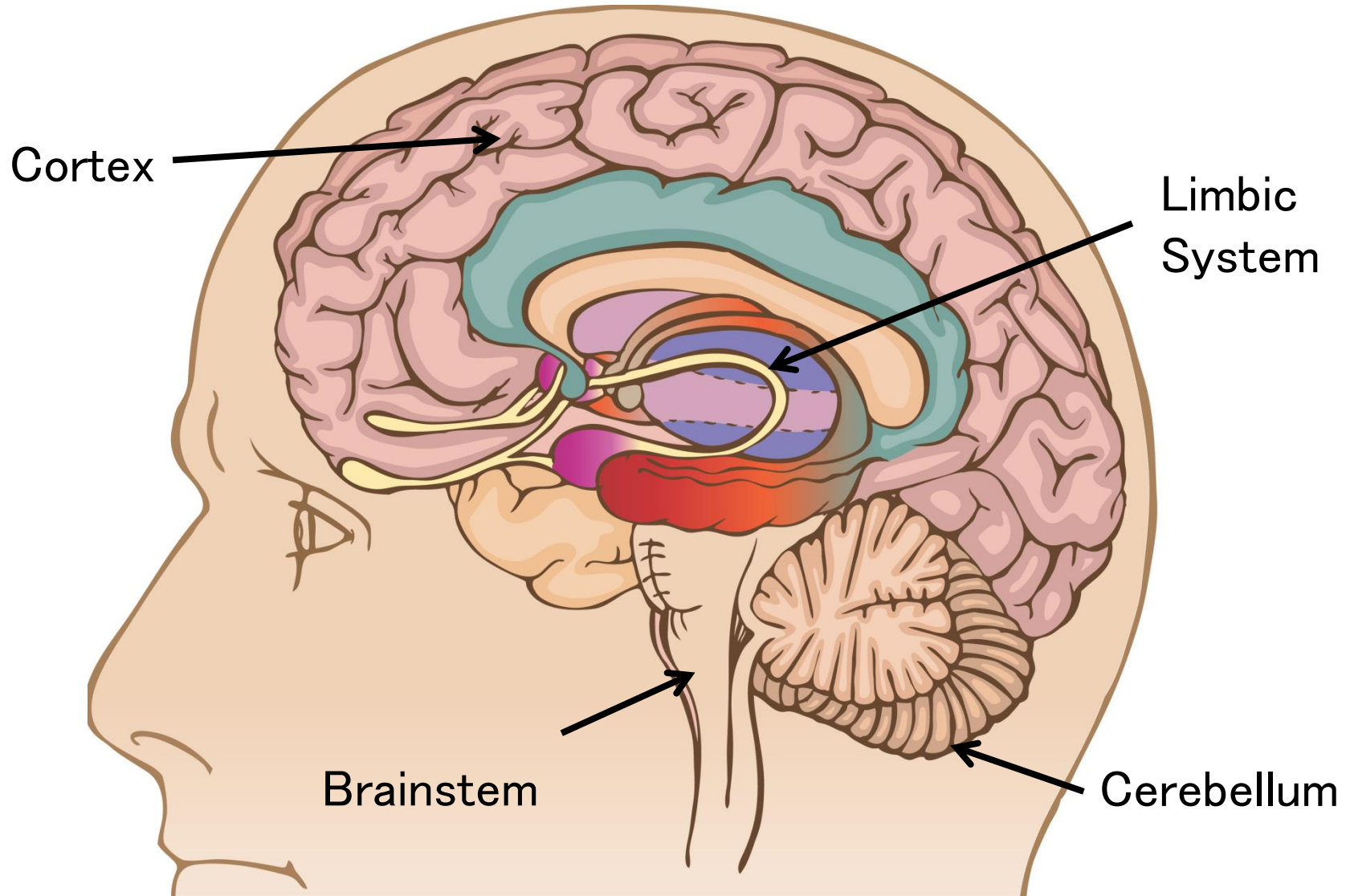
ACE – health outcomes



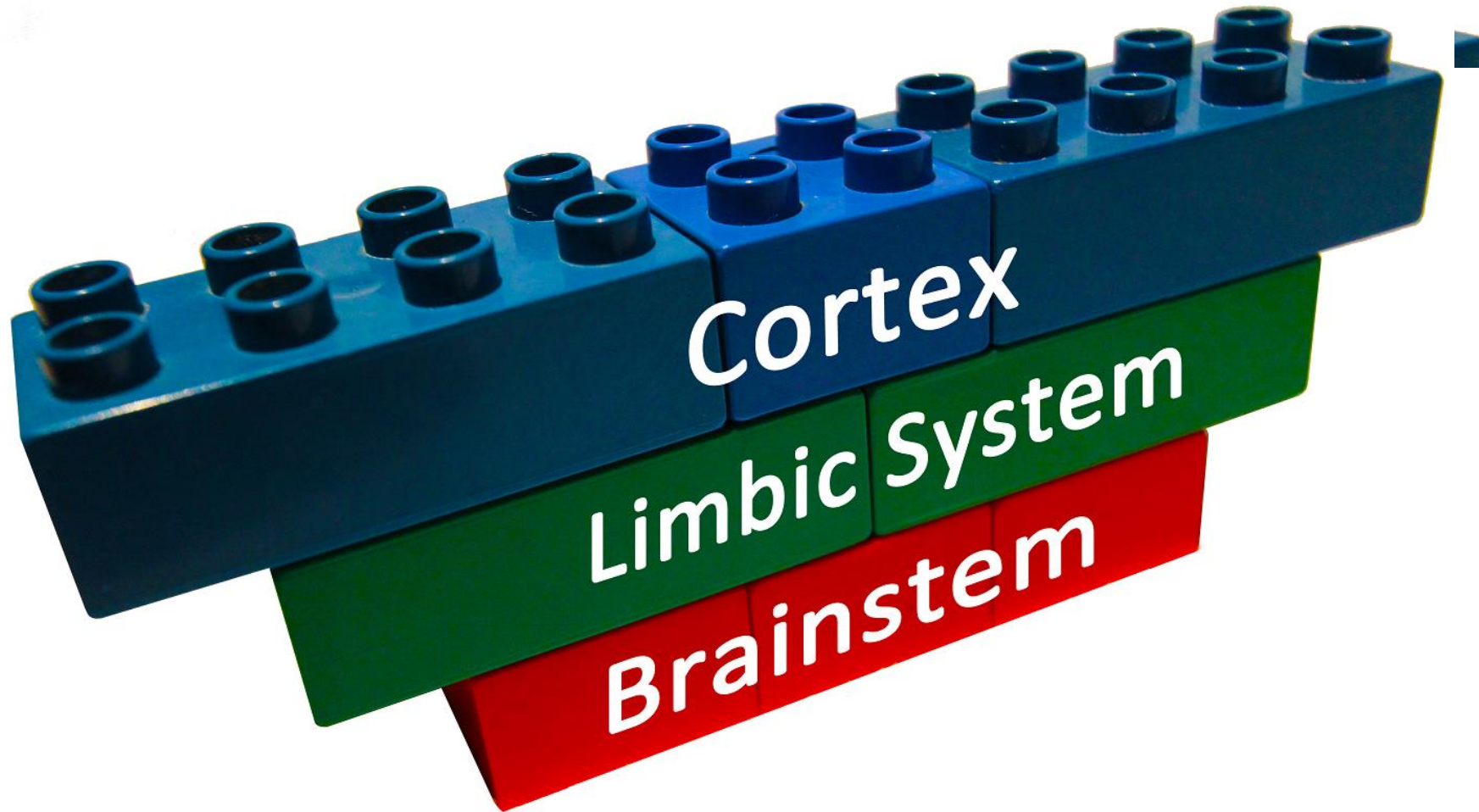
Brain Growth



Inside the Brain



Building the Brain



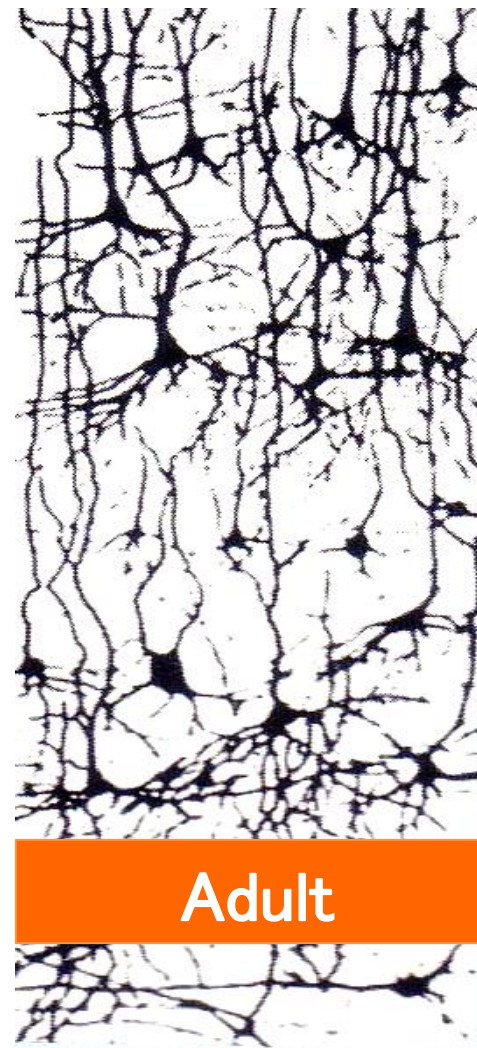
Connections and Pruning



Birth



Early Years



Adult

Factors which can impact outcome

Risk Factors

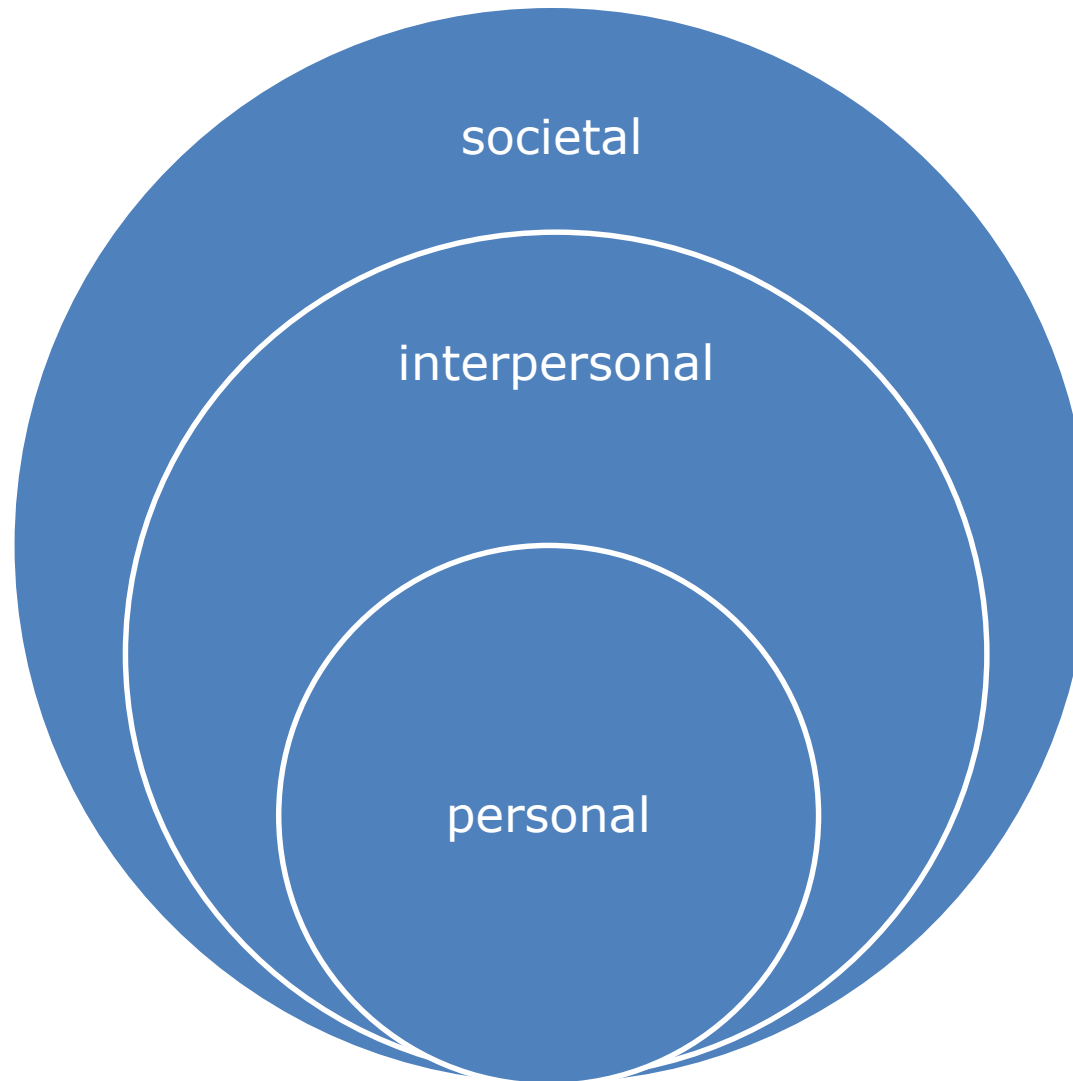
- 🧠 increase the likelihood of a poor outcome
- 🧠 do not **cause** the outcome, but increase its probability

Protective Factors

- 🧠 Higher probability of good outcomes
- 🧠 Do not guarantee a good outcome



Risk/Protective factors





Stress

Stress Can Be ...

🧠 Positive

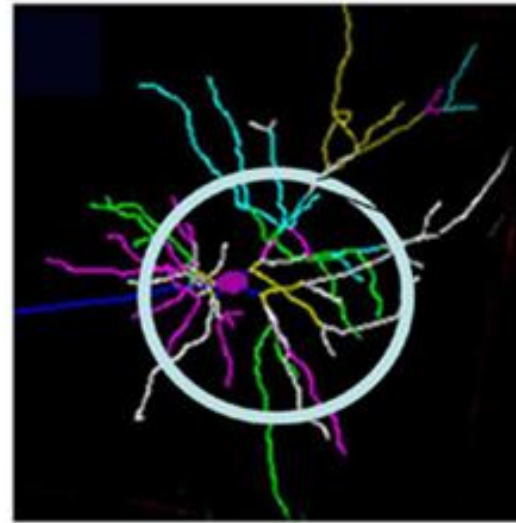
🧠 Tolerable

🧠 Toxic

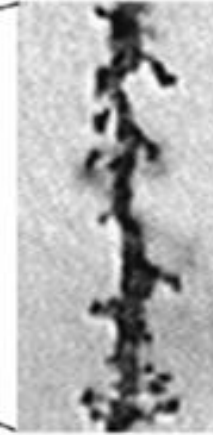


Stress Changes the Brain

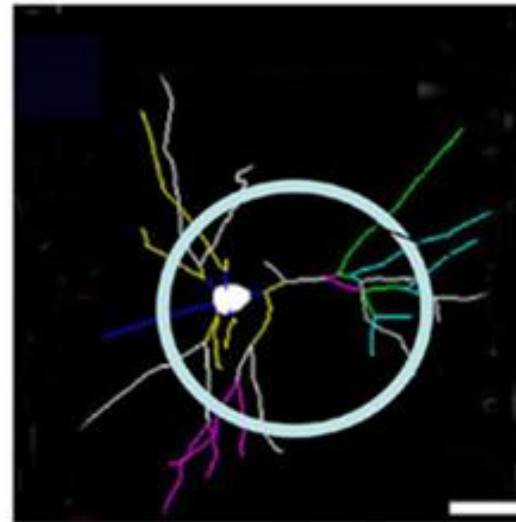
Normal



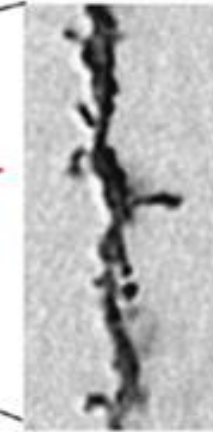
Typical neuron—
many connections



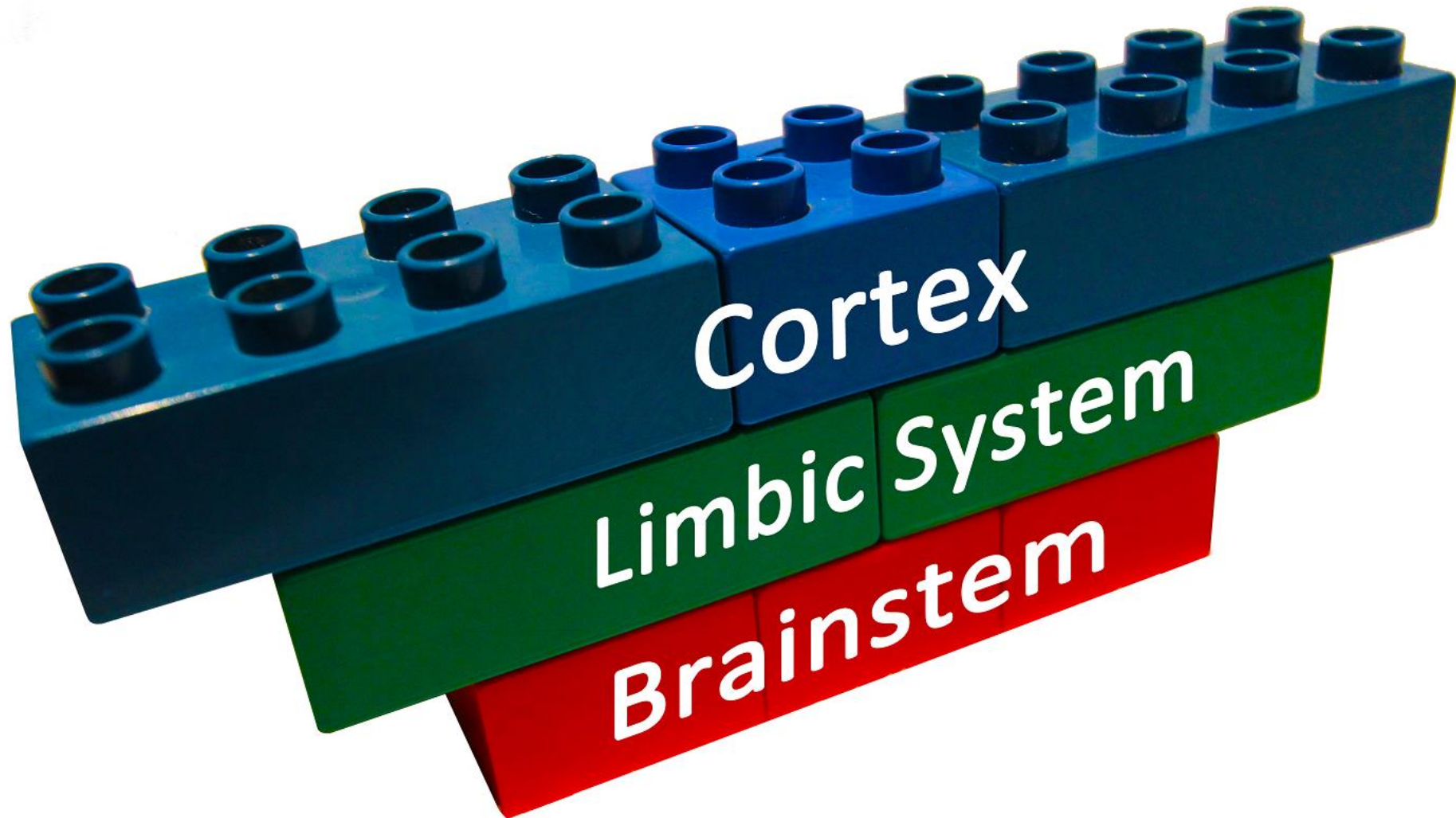
Toxic
stress



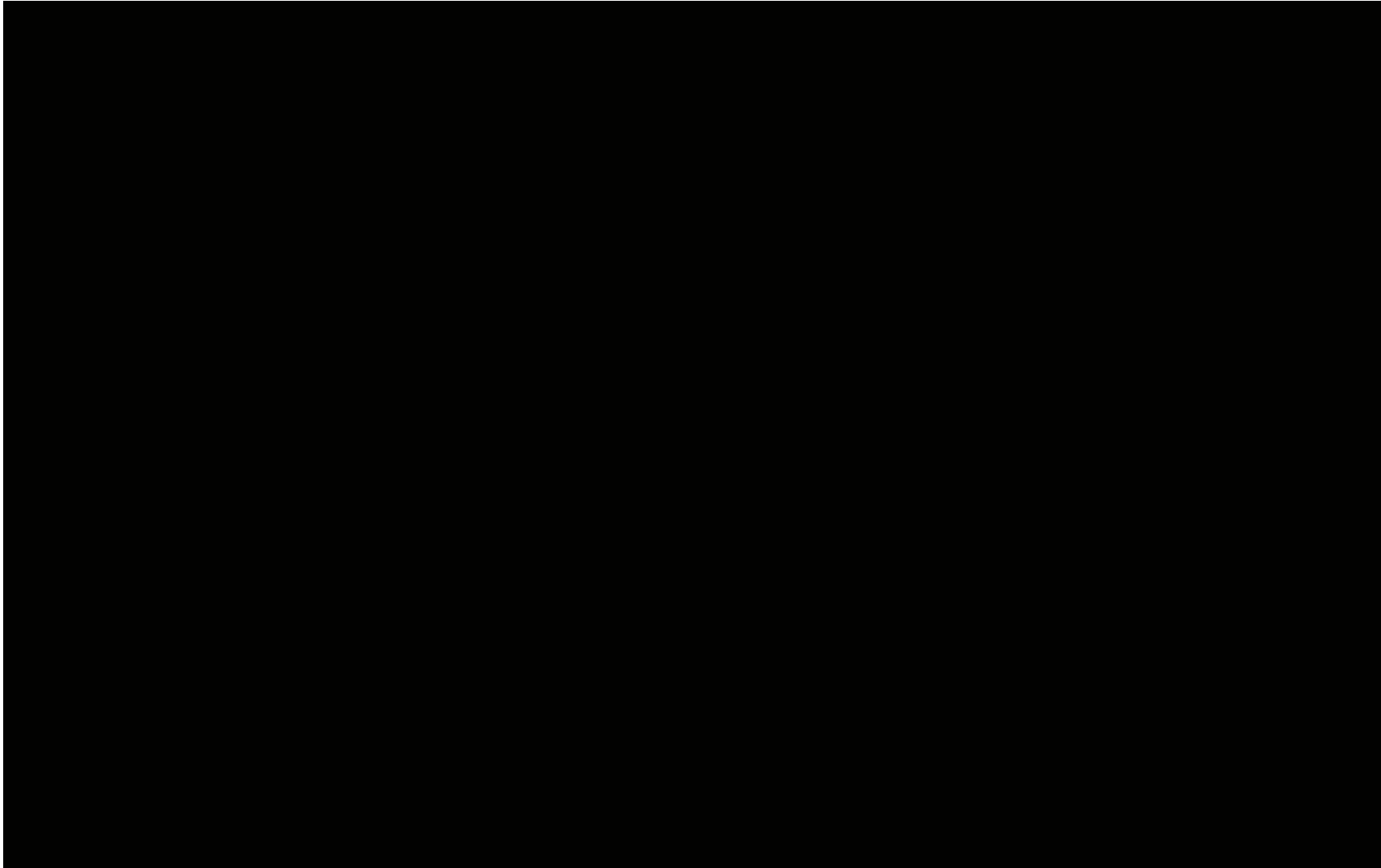
Damaged neuron—
fewer connections



Brain Backs Down



Stress





Senses and Relationships



Being Responsive



Reference: Tronick et al (1989).



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Attachment is . . .

“Attachment is the umbrella under which all other development occurs”

Lauren Porter, 2009, p.46



Supporting Secure Attachment



References: Bowlby (1988), Dykas (2011), Perry (2004), Schore (2000).

What You Can Do

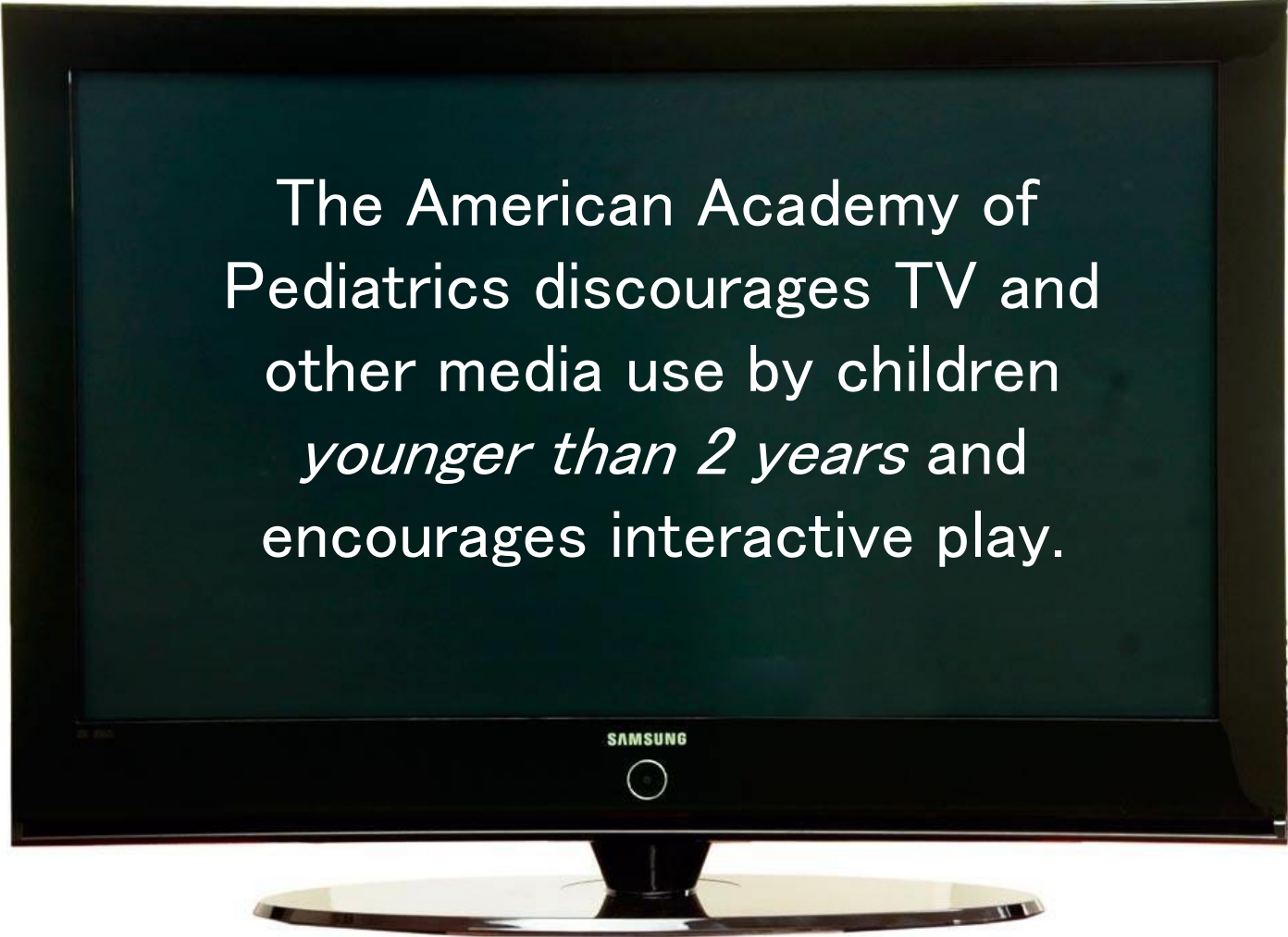


Electronic Media



Reference: Christakis & Zimmerman (2009).

Guidance on Screens...

A black Samsung monitor with a silver base. The screen is dark blue and displays white text. The text reads: "The American Academy of Pediatrics discourages TV and other media use by children *younger than 2 years* and encourages interactive play." The Samsung logo is visible at the bottom center of the monitor.

The American Academy of Pediatrics discourages TV and other media use by children *younger than 2 years* and encourages interactive play.

References: Council on Communications and Media (2011), DeLoache et al (2010), Landhuis et al (2007), Schmidt et al (2008), Zimmerman & Christakis (2007).

Touch



References: Feldman et al (2010), Field (2010), Field et al (2008), Weiss et al (2004).

Breastfeeding



References: Britton et al (2006), Jones et al (2004), Karmaus et al (2008), Kramer et al (2008),
Quinn et al (2001), Slykerman et al (2005), WHO (2010).



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Spot What is Wrong?



“Dad. Dad. Dad”



Shared Reading



References: Bus et al (1995), Lariviere & Rennick (2011), Rodriguez et al (2009),
Storch & Whitehurst (2001).



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Play is Their Work



References: Elkind (2007), Frost (1998), Ginsburg (2007), Hughes (2010).

Fathers

Unique role

- Exploration
- Play

Dependent on

- Paternal sensitivity
- Trusted and dependable
- Positive supportive engagement



Potential Benefits

More likely when:

- 🧠 3 - 4 years old
- 🧠 Attending part-time
- 🧠 ECE is of high quality
- 🧠 Care arrangements are stable



Potential Risks

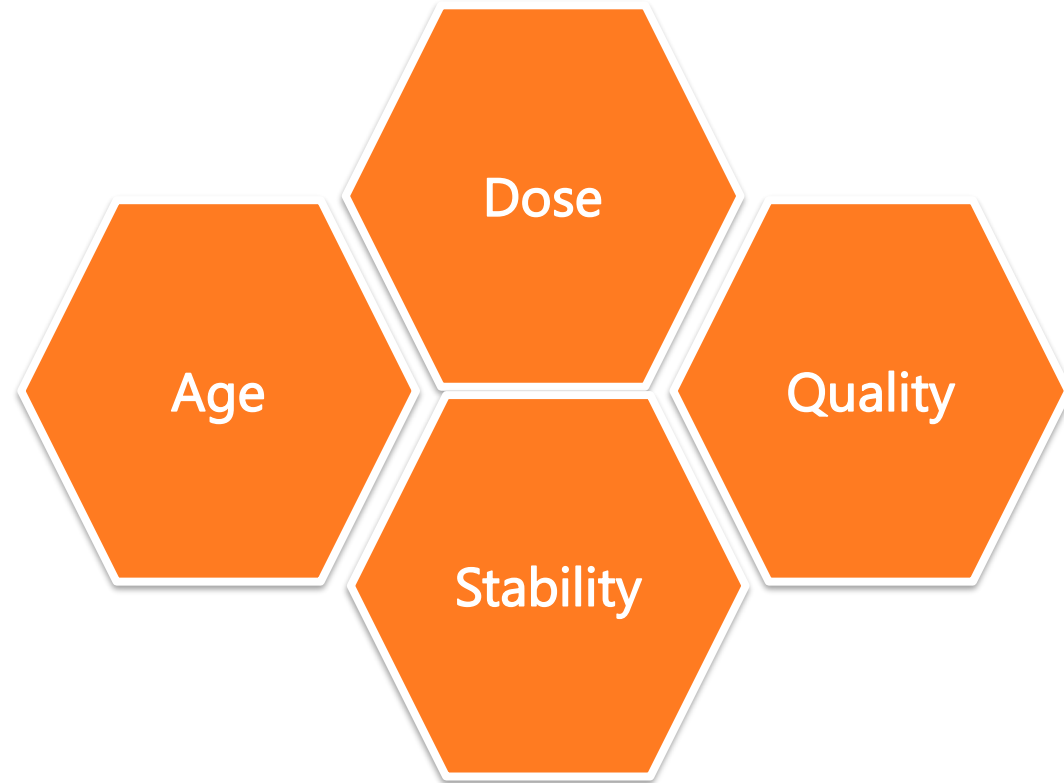
More likely when:

- 🧠 Below 3 years, especially babies
- 🧠 Increasing hours in ECE
- 🧠 Poor quality ECE
- 🧠 Instability of care arrangements

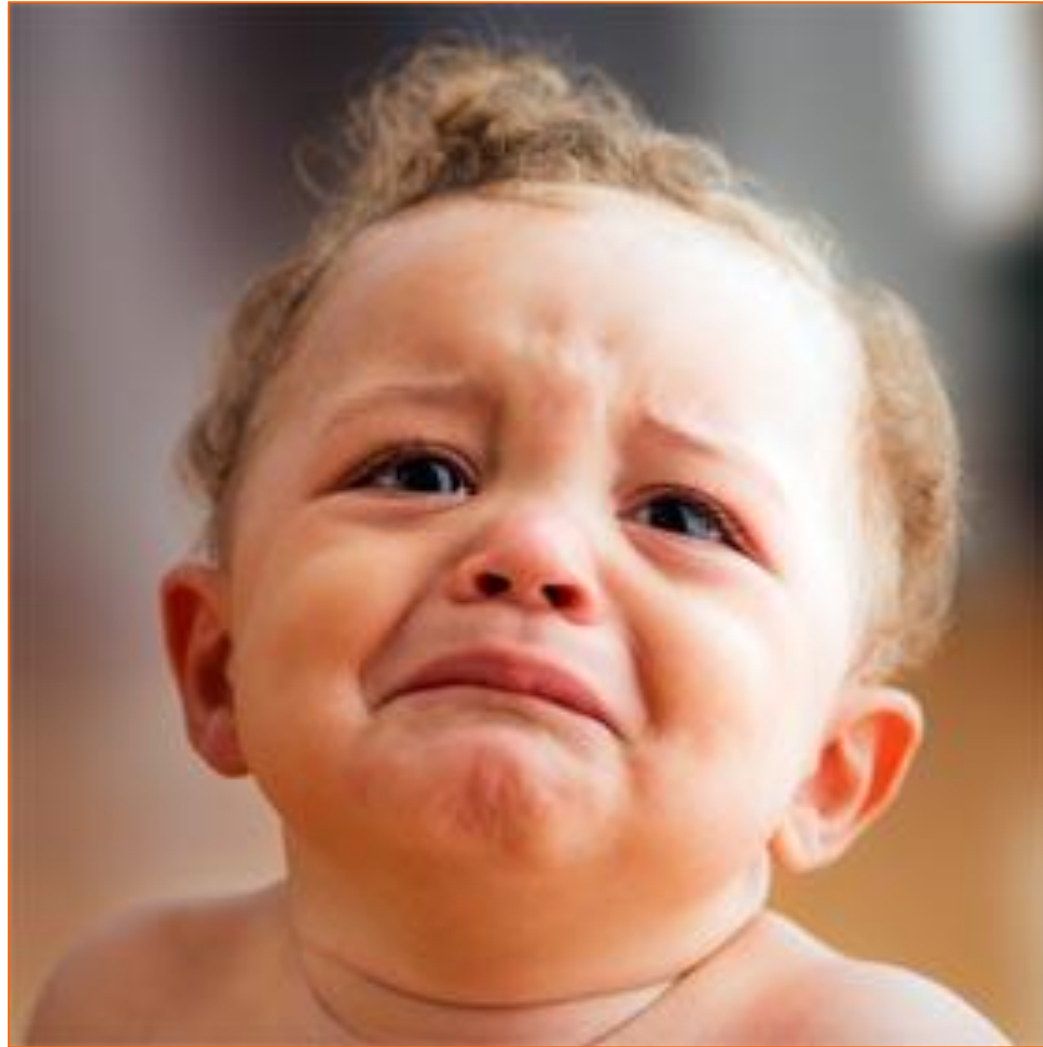


What to Consider...

These factors all influence the likely outcomes



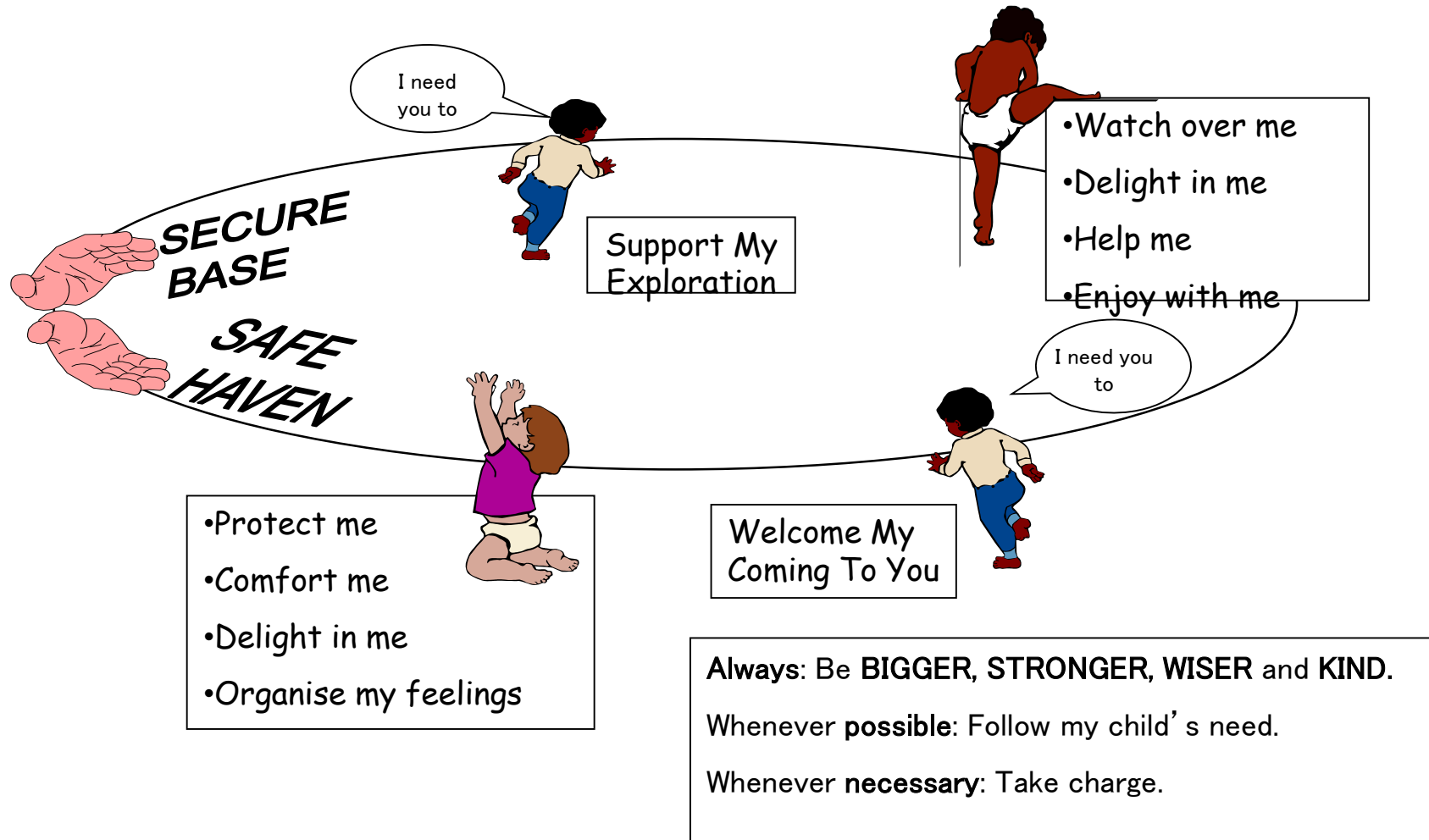
What is He Trying to Tell You?



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Circle of Security

Parent attending to the child's needs





Staying in touch...

Latest news and articles on our website:

www.brainwave.org.nz

Join us on Facebook and Twitter:

Facebook: www.facebook.com/brainwavetrust

Twitter: [@BrainwaveTrust](https://twitter.com/BrainwaveTrust)

Fundraise for us by participating in an event:

www.everydayhero.org.nz



And, please help us spread our message by making a donation today in the envelope provided. Thank you.



Every child
deserves
the best start in
life



www.brainwave.org.nz

Nicky's recommended reading list

For Doc's

- Robin Fancourt – Brainy Babies
- Bruce Perry – The Boy Who Was Raised as a Dog
The Inaugural Margaret McCain Lecture, September 23, 2004 by Dr. Bruce Perry, M.D., Ph.D., the Senior Fellow of the Child Trauma Academy in Houston, Texas.

[Maltreatment and the Developing Child: How Childhood Experience Shapes Child and Culture](#)

For Doc's and patients

- Diane Levy – Of Course I Love you, Now go to your room
- John Gottman – Raising An Emotionally Intelligent Child
- Adele Faber – How to Talk so Kids will Listen and Listen so Kids Will talk

Genes AND Experience



Nature and Nurture Work
Together

Reference: Murgatroyd & Spengler (2011).



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Some Risk Factors

Prenatal

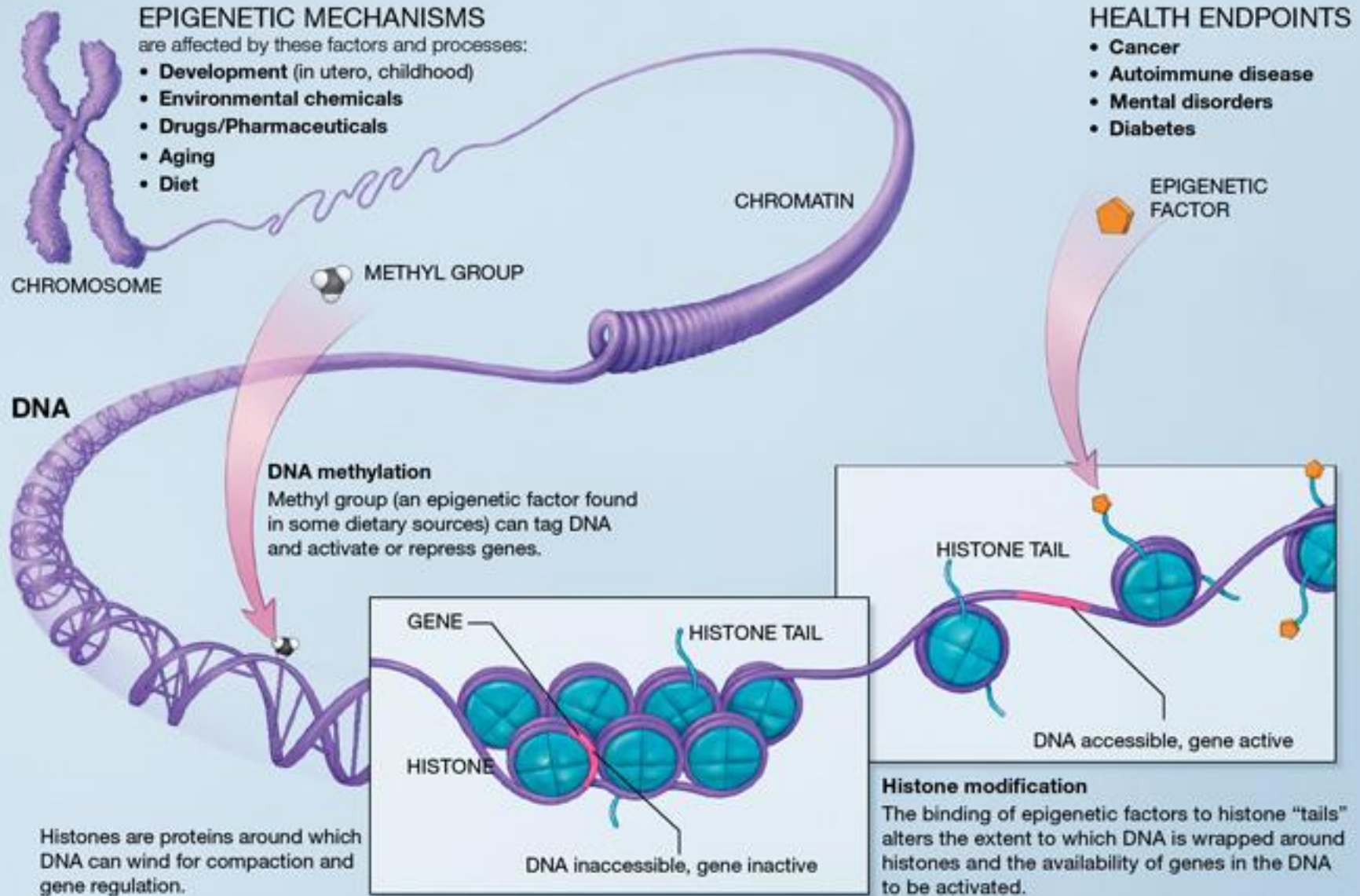
-  Chronic maternal stress
-  Alcohol exposure
-  Smoking
-  Illicit drugs

Postnatal

-  Toxic stress
-  Parental depression
-  Child abuse
-  Family conflict
-  Family violence
-  Neglect
-  Poverty

References: Ashman et al (2008), Davies & Woitach (2010), Derauf et al (2009), Egeland (2009), Evans et al (2008), Niccols (2007), Nikulina et al (2011), NSCDC (2005), NSCDC (2006), Rice et al (2010), Twardosz & Lutzker (2010).

Epigenetics



Rat mothering and stress



References: Caldji et al (1998), Francis et al (1999), Weaver et al (2004).



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