

PUBERTAL PROGRAMMING OF SEXUAL FUNCTIONING



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Introduction: fetal programming of adult health

- In all fetuses excess sprouting of nerves occurs
- Some nerves make connections needed for later life
- These are retained, the others are removed by apoptosis
- If important organs are not used at the correct developmental stage, then they may lack nerve supply in adulthood.
- Sensory or motor deprivation at critical development times leads to inadequate innervation, and hence dysfunctions in later life.

Objective: investigate pubertal programming of adult sexual health

Sex organs develop during puberty; their nerves grow during puberty⁽⁴⁾.

- pulse of neuronal sprouting & ↑ synaptic density @ reproduction sites, & @ orgasm sites in brain

Sexual experience during puberty

can train the nerve pathways⁽³⁾ that are important for orgasm.

These nerves are retained into adulthood.

Adults who do have the nerves necessary for sexual health can achieve orgasm.

Most boys *do* use their sex organs when they are developing during puberty^(6,7)

Most men have *no problem* achieving orgasm.⁽⁵⁾

Probably, they *do* have the correct nerve pathways in the periphery and the brain, that are needed for orgasm.

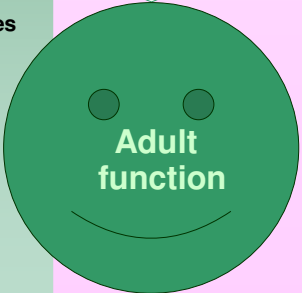
At puberty: increased hormones & genital growth stimulate: curiosity & libido⁽¹⁾

Society suppresses practice by girls more than boys^(6,7)

trial & error: Orgasm & ejaculation

Synaptic stability

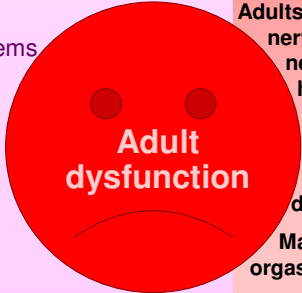
Nerves are maintained



abstinence: No orgasm in teens

Synaptic instability

Neuronal apoptosis



If sex does not occur at the correct time, then the nerves needed for a normal sex life might not be stabilised.

The extra nerves that sprouted at puberty⁽⁴⁾ would be lost by apoptosis.

Adults who do not have the nerves & brain pathways needed for sexual health may have problems achieving orgasm.

Many girls *do not* use their sex organs when they are developing during puberty^(2,7)

Many women *cannot* achieve orgasm.^(2,5)

Probably, many women *do not* have the correct nerve pathways in the periphery and the brain, that are needed for orgasm.

Conclusion

Primary anorgasmia in women could be prevented if girls were encouraged to develop normally during adolescence; i.e. if their adult sexual health was correctly programmed during puberty. One way to program adult functions is to practice sexual activities during adolescent development.

References

1. Bancroft J (1983) *Human Sexuality and its problems*
2. Fugl-Meyer KS et al. (2006) *J Sex Med* 3:56-68
3. Georgiadis JR (2006) *Eur J Neurosci* 24:3305-3316
4. Keast JR (2006) *Int Rev Cytol* 248:141-208
5. Laumann EO et al. (2005) *Int J Impot Res* 17:39-57
6. Sauers J (2007) *Sex Lives of Australian Teenagers*
7. Schwartz IM (1999) *Archiv Sex Behav* 28:63-69