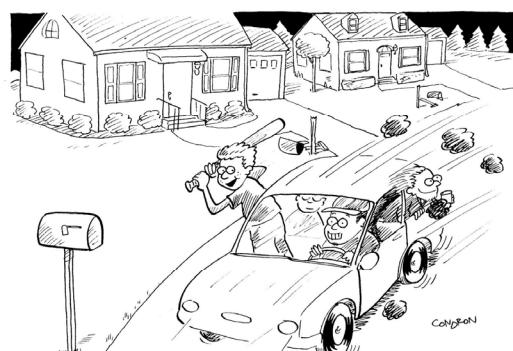


The Blunt Truth (Bad News/Good News)

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"SOMEDAY, WHEN OUR PRE-FRONTAL CORTEXES ARE FULLY DEVELOPED, WE'LL LOOK BACK ON THIS AND SHAKE OUR HEADS."

CartoonStock.com

2

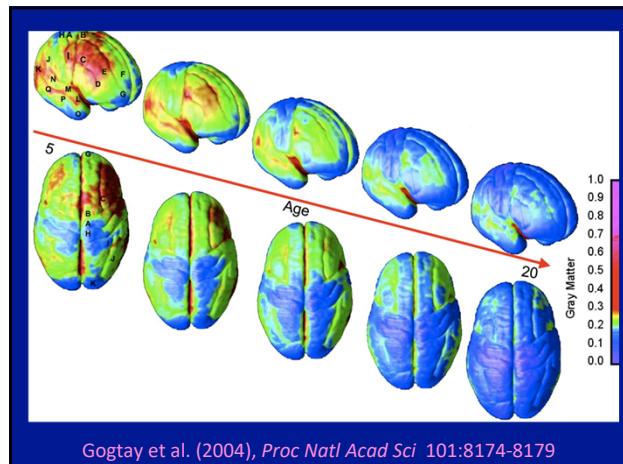
1. Teen brain
2. Substances and teen brain
3. Implications

3

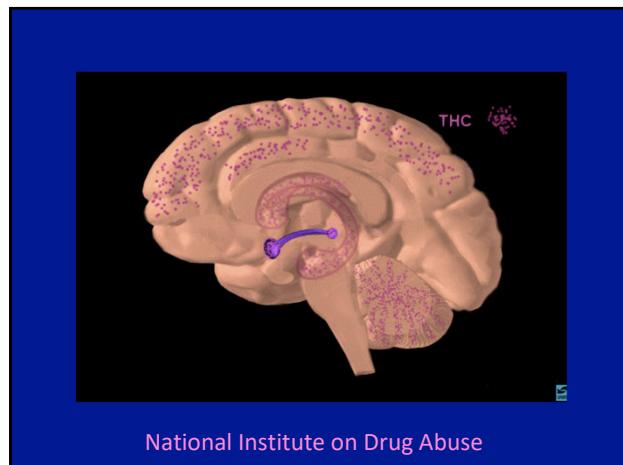
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1. Teen brain
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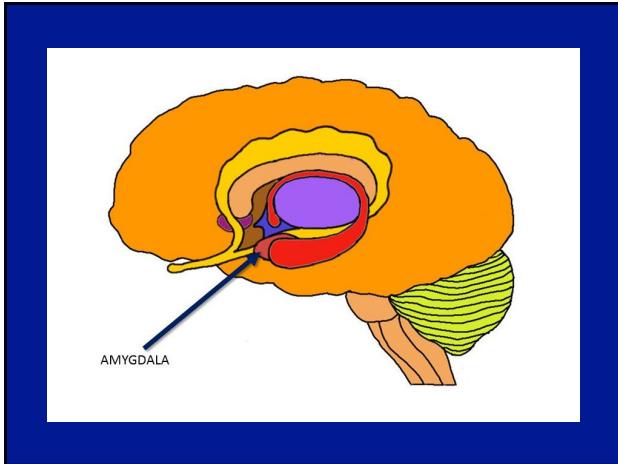
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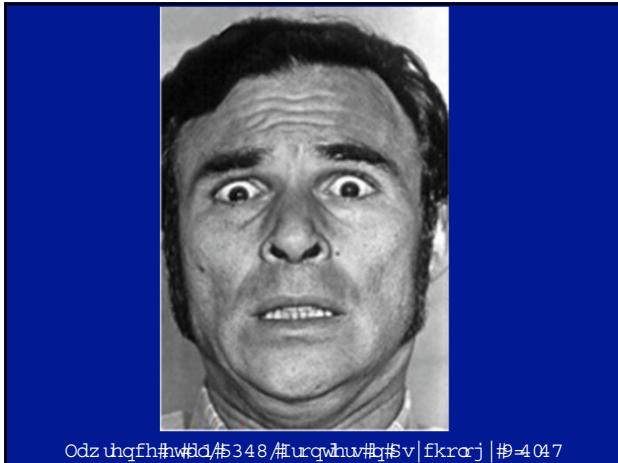
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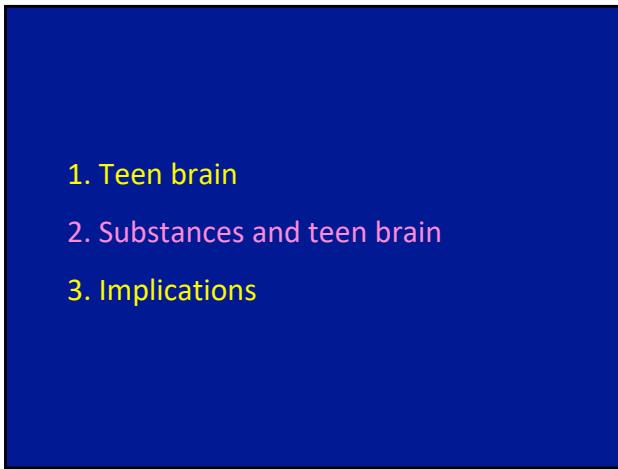


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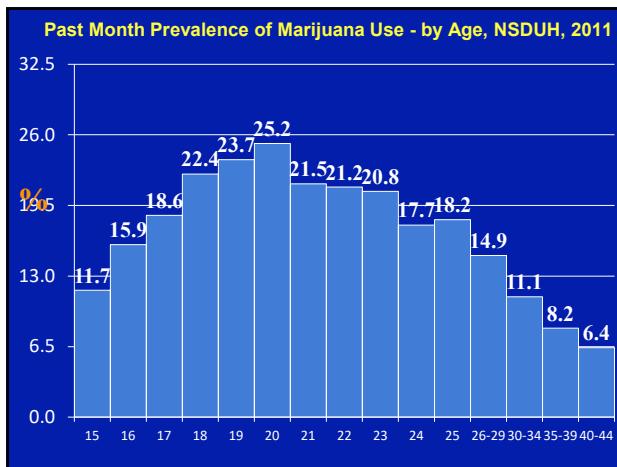


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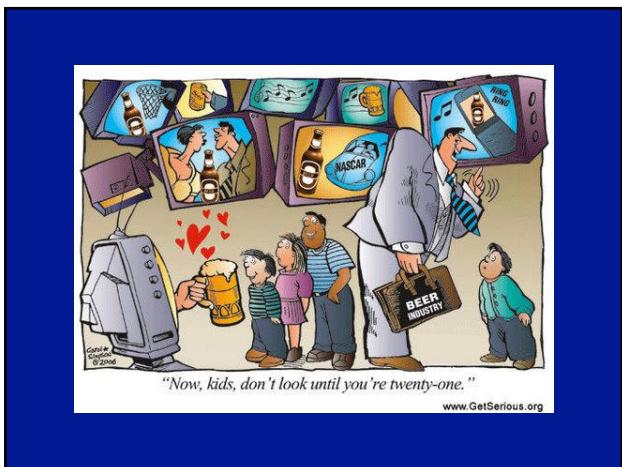
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Mixed findings

19

Positive findings

- 1 in 6 develop addiction Hall and Degenhardt (2009), *Lancet* 374:1383-1391
 - Heavy marijuana exposure starting in adolescence predicts and 8-point drop in IQ from age 13 to 38 years Meier et al., (2012), *Proc Natl Acad Sci USA* 109:E2657-E2664
 - 2-fold increased risk of psychosis in adulthood Andreasson et al. (1987), *Lancet* 2:1483-1486; Arsenault et al. (2004), *Br J Psychiatry* 184:110-117; Bechtold et al. (2016), *Am J Psychiatry* 173:781-789; Fergusson et al. (2005), 100:354-366; Henquet et al. (2005), *BMJ* 330:11; Kuepper et al. (2001), *BMJ* 342:d738; van Os et al. (2002), *Am J Epidemiol* 156:319-327

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Positive findings

- Decreased school achievement Brook et al. (1999), Am J Public Health 89:1549-1554; Fergusson et al. (2003), Addiction 98:1681-1692; Horwood et al. (2010), Drug Alcohol Depend 10:247-253; Lynne-Landsman et al. (2010), Dev Psychopathol 22:933-948; Stiby et al. (2015), Addiction 110:658-668
 - Increased risk of using other substances Smith et al. (2013), Drug Alcohol Depend 132:63-68
 - Depression (OR=1.37) and suicide attempt (3.46) Gobbi et al., 2019 JAMA
 - Found in breast milk for up to 6 days after cessation of use (Bertrand et al., 2018 Pediatrics 142(3): ePub ahead of print)

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- 1. Teen brain
- 2. Substances and teen brain
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Warm relationship between child and caregivers is the strongest prevention and treatment



24

Adolescents want to be understood, not fixed



25

Emotions must be validated

• If a child says "I'm angry", validate it: "I can see you're angry".

• If a child says "I'm scared", validate it: "I can see you're scared".

26

Logic does not work if the elevator is on the 9th floor



27

Adolescents must be pursued



28

Soft emotions carry the day

Hard

Dqjhu
Dq{hw|
H{dvshudwrg
Tuxvwdwrg
Qhuyxvqhv
Z ruu|

Soft

Ihdu
J xlv
Khœðvv
Vdgqhvv
Vkdþ h

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Unconditional love

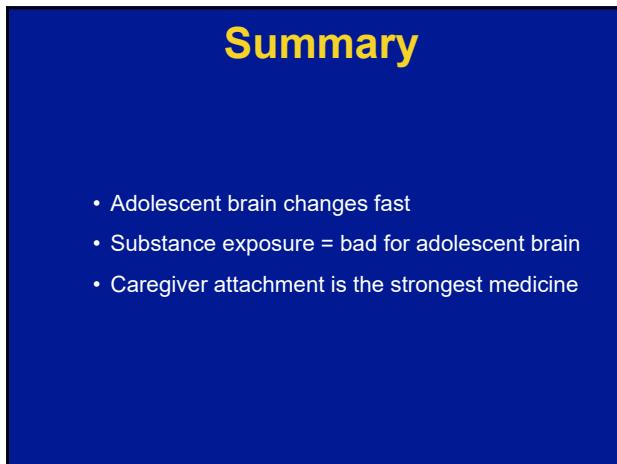


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[Kết quả hình ảnh cho how do i help my child with anxiety?](#)

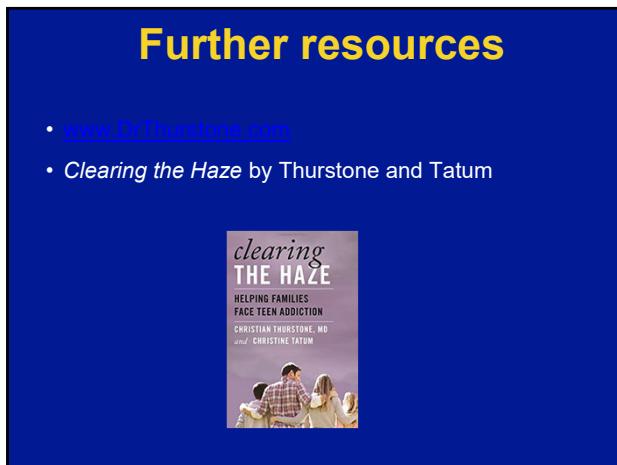
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Summary

- Adolescent brain changes fast
- Substance exposure = bad for adolescent brain
- Caregiver attachment is the strongest medicine

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Further resources

- [www.DrThurstone.com](#)
- *Clearing the Haze* by Thurstone and Tatum



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