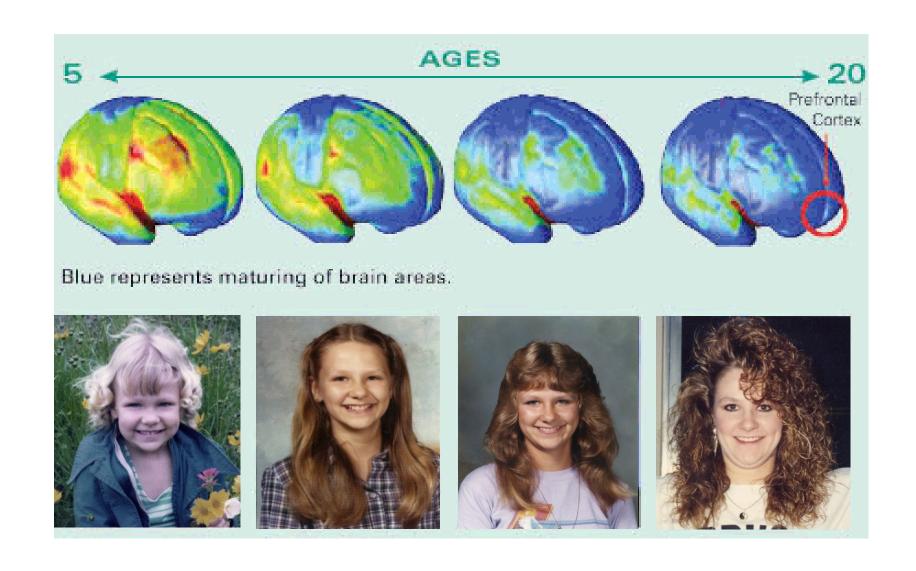
Brain-based Production Tooks Setting a Plan for Success

By Crystal Collier, PhD, LPC-S





Your Presenter: Crystal





WHEREABOUTS WHEREABOUTS THO WANT TO PREVENT SK SCHAVIOR GUIDE A NEURODEVELOPMENTAL GUIDE FOR PARENTS AND FAMILIES WHO WANT TO PREVENT YOUTH HIGH-RISK REHAVIOR



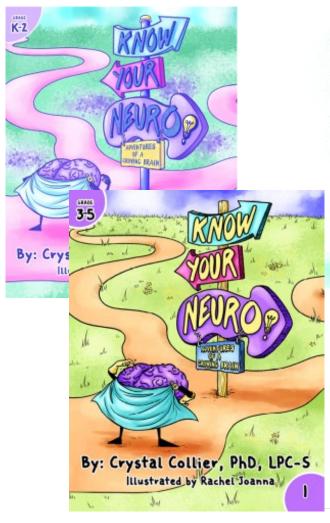
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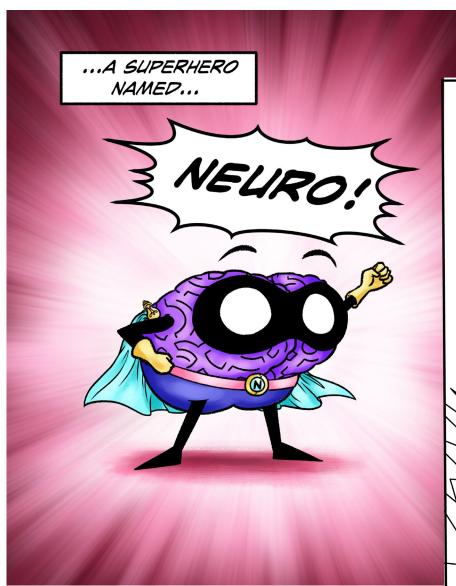
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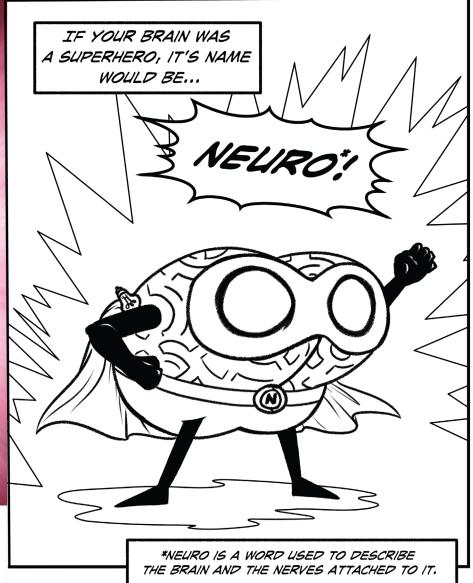


Know Your Neuro: Adventures of a Growing Brain



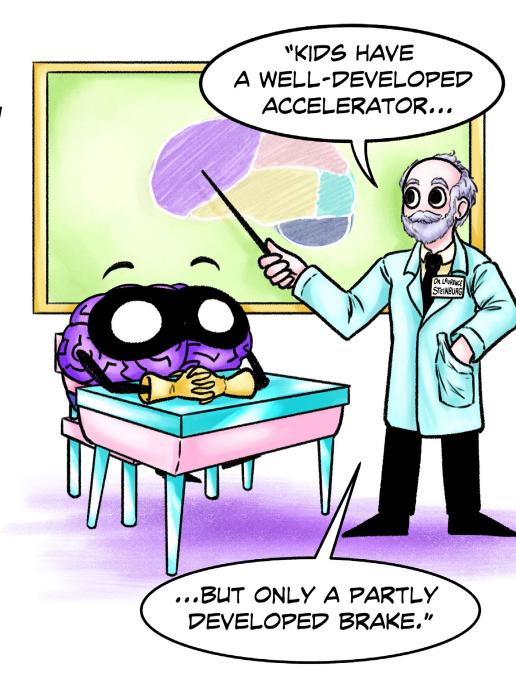






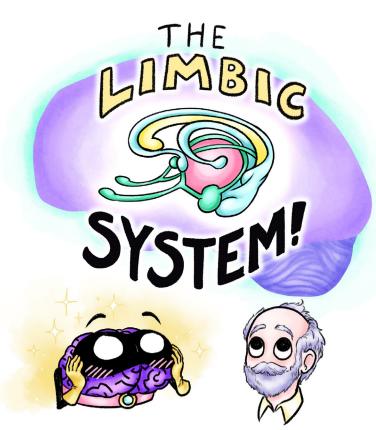
An adolescent has a well-developed accelerator but only a partly development brake.

-Laurence Steinberg



What part of your brain is the accelerator?





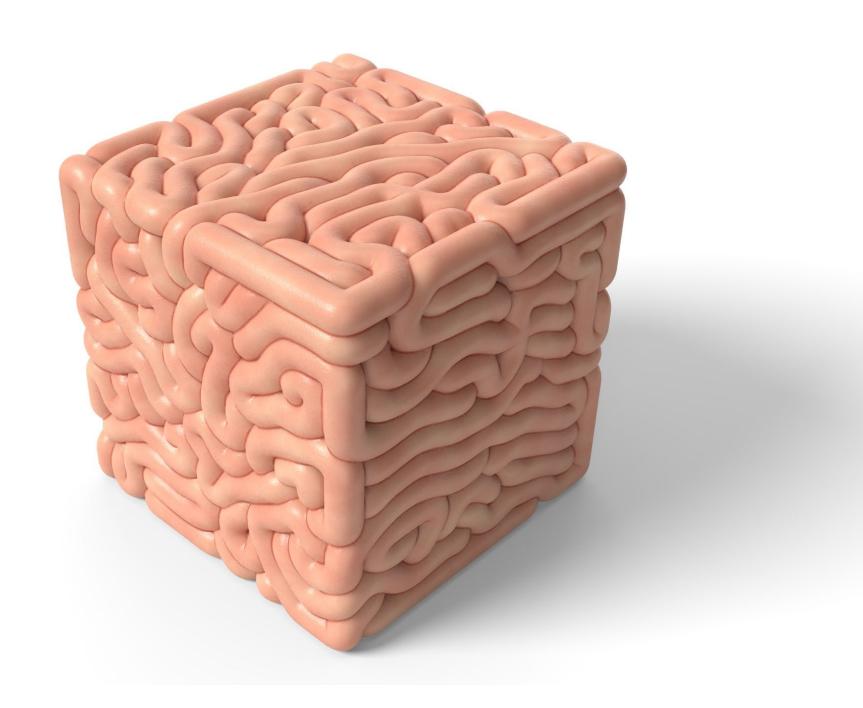


What part of your brain is the brake?

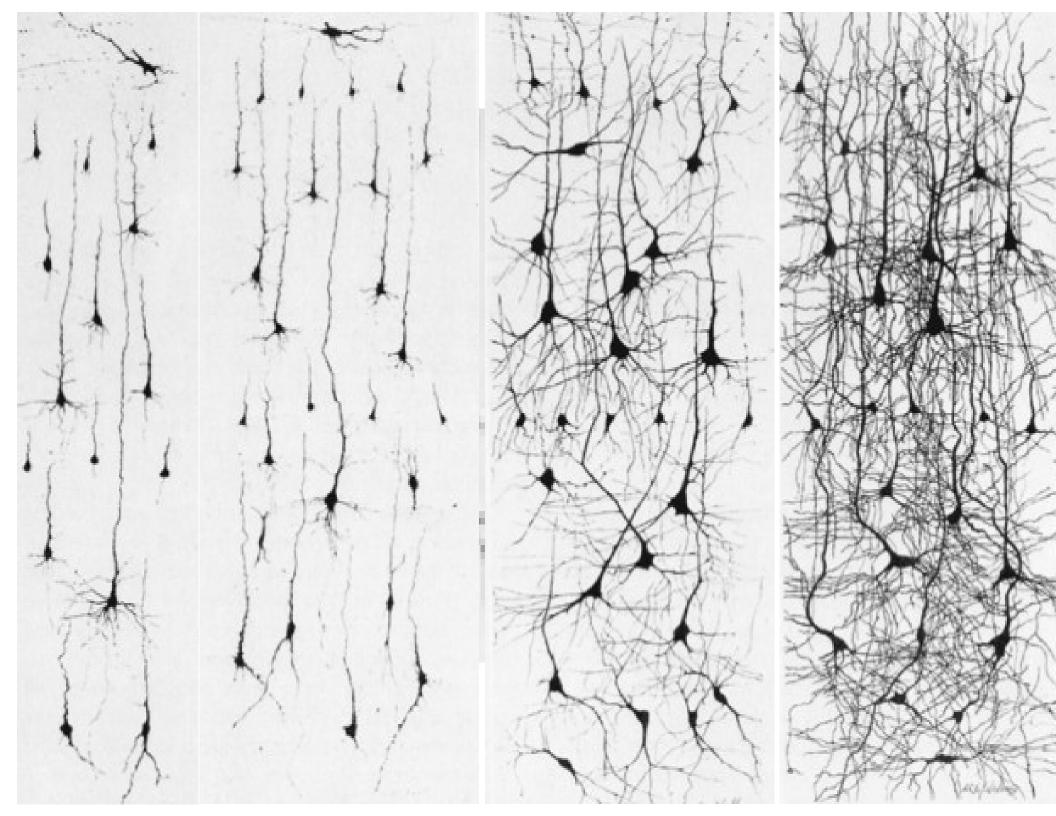


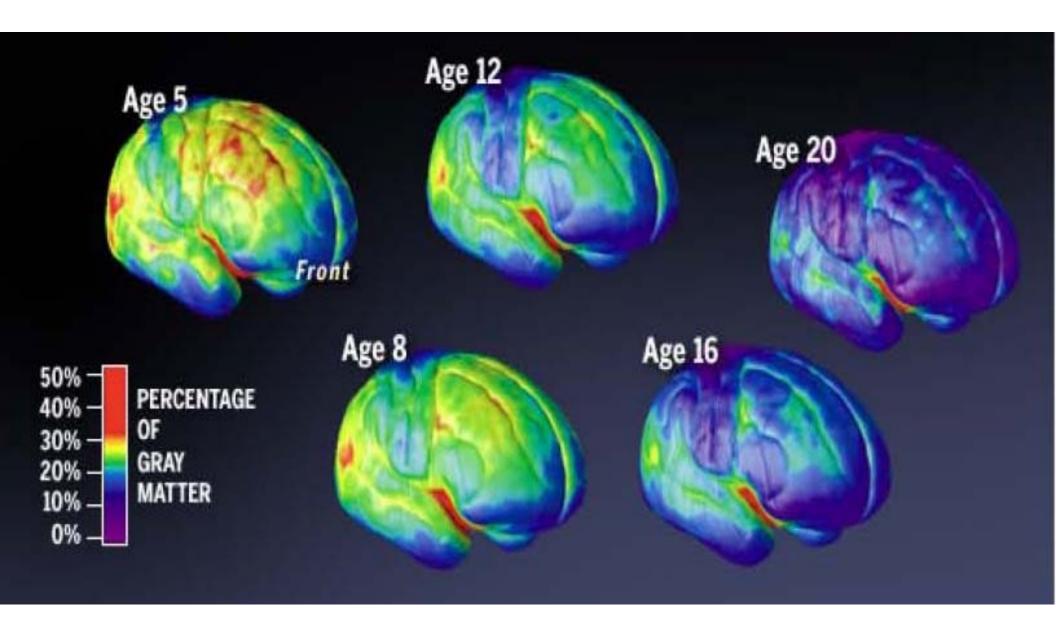








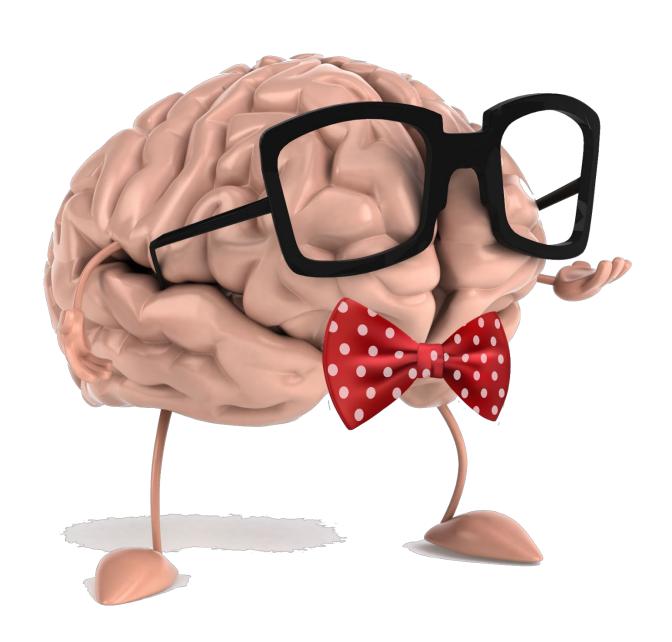




Second The Brain's Rule



CEO: Chief Executive Officer



Executive Functioning



Birth/Elementary/Middle

- Task Initiation
- Flexible Thinking
- Planning and Prioritizing
- Organization
- Working Memory
- Self-Monitoring
- Selective Attention
- Coordination

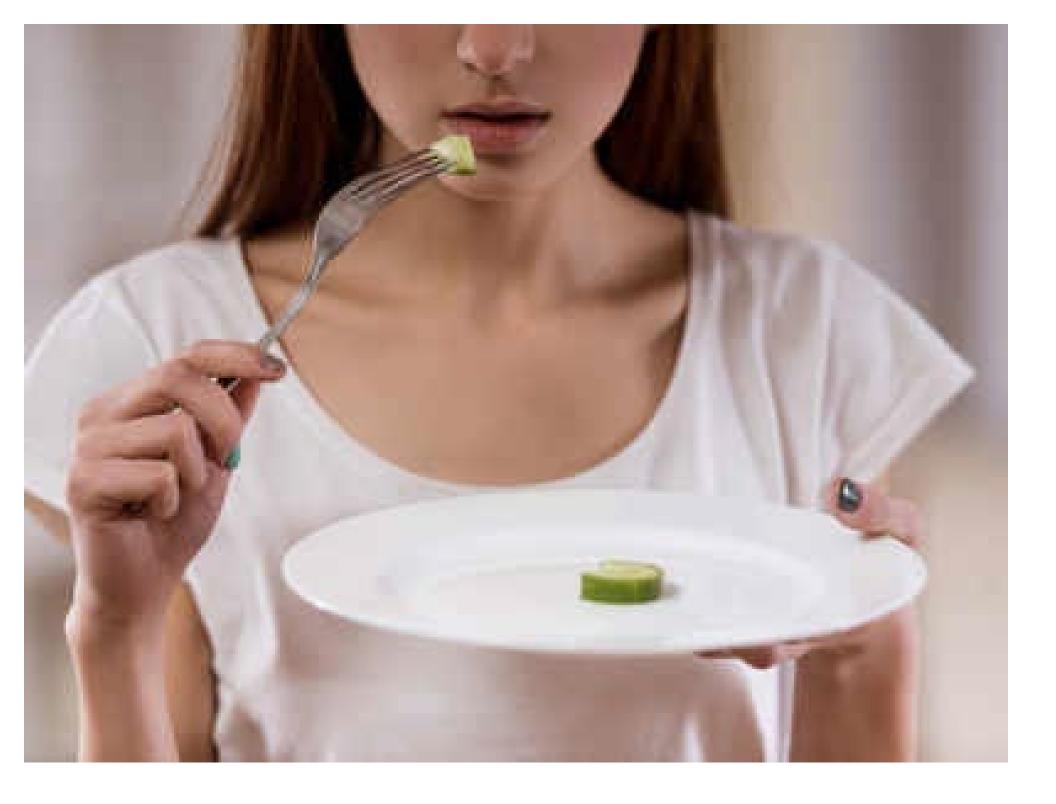
Middle/High School/Age 25

- Abstract; conceptual understanding
- Impulse Control
- Problem-Solving
- Decision-Making
- Judgment
- Emotion Regulation
- Frustration Tolerance
- Ability to Feel Empathy

Third Risky Behavior

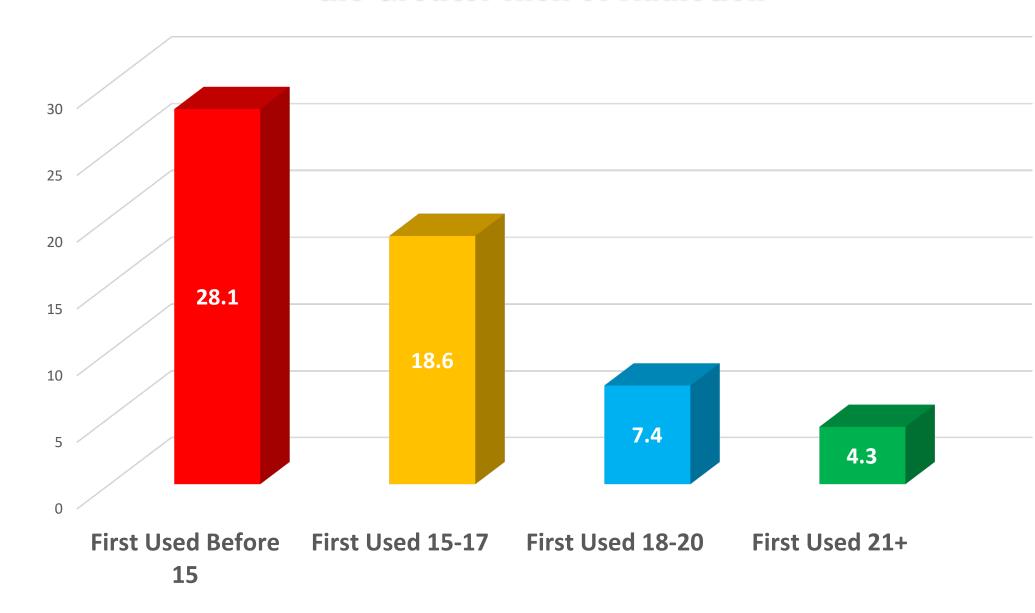




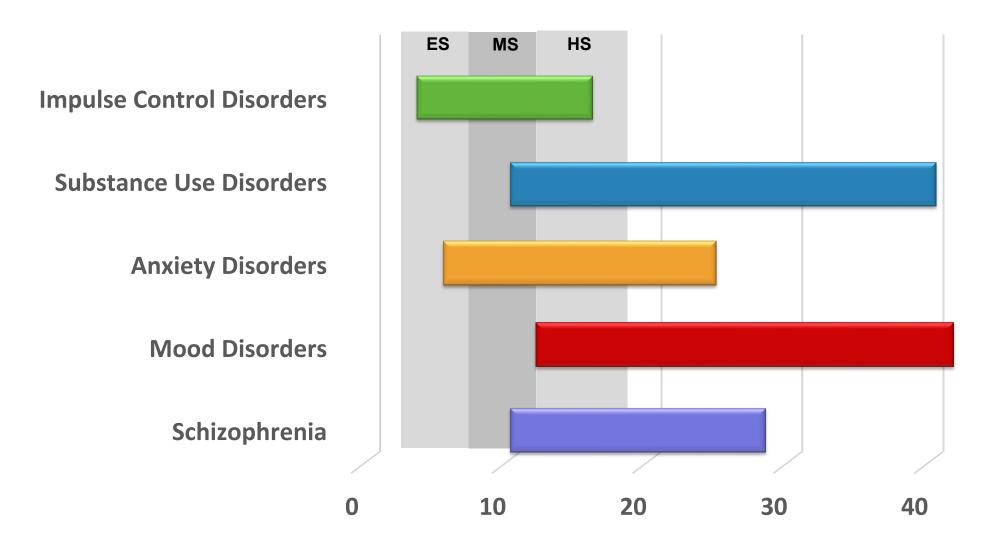




The Earlier Teens Use Any Substance the Greater Risk of Addiction

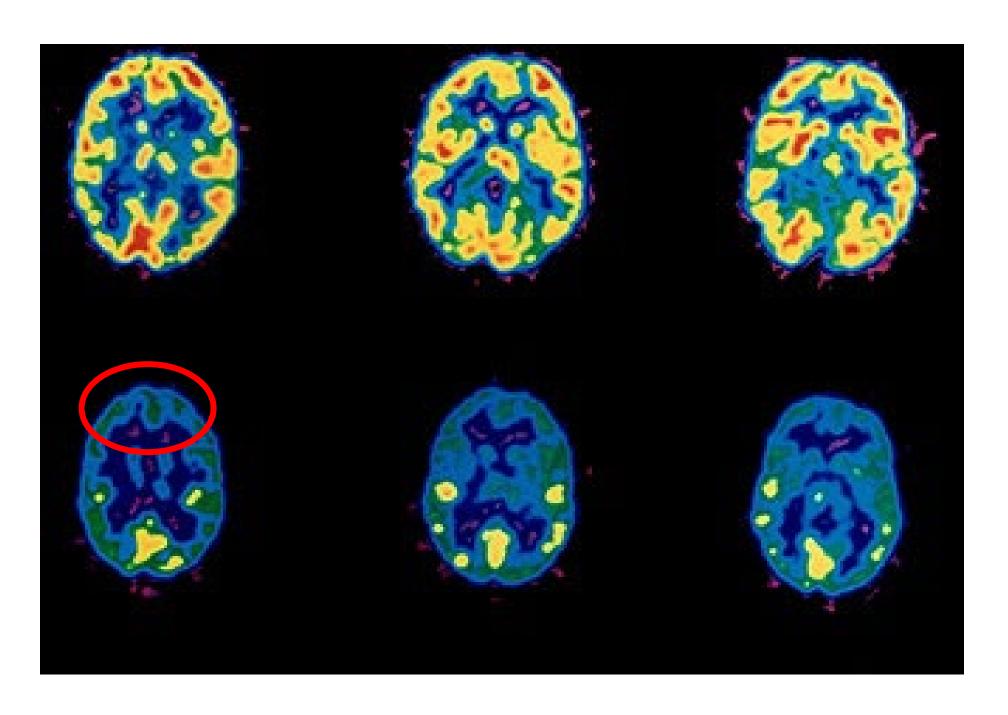


Onset Range for Mental Disorders Happens Early



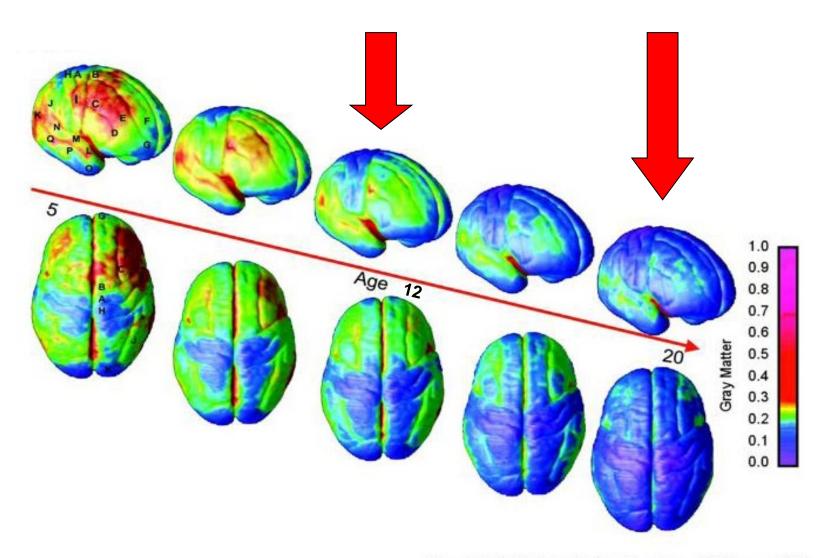
Kessler, et al (2005); Merikangas, et al (2010); Paus, et al (2008)

Fourth Effects of Risky Behavior



What if your brain is growing?

If you arrest here but stop using or suffering here



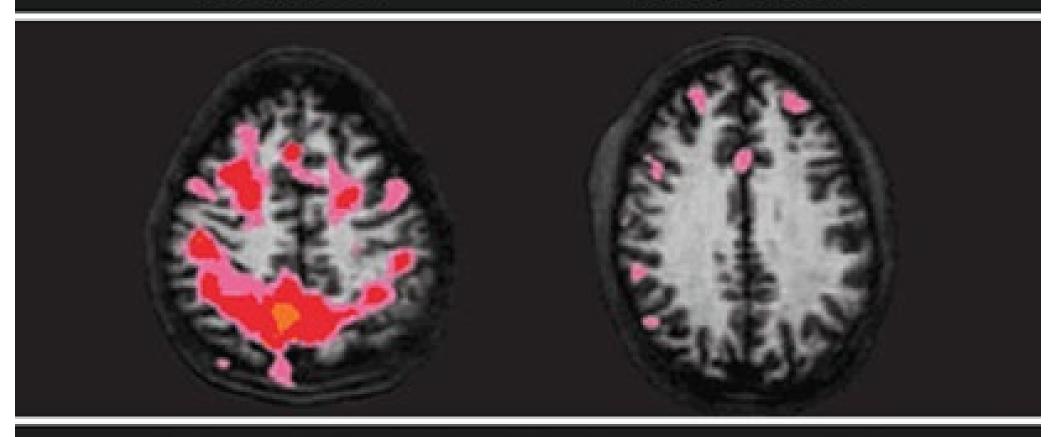
Copyright © 2004 The National Academy of Sciences, USA
Gogtay, N., Giedd, J.N., et al. (2004)

Dynamic mapping of human cortical development during childhood through early adulthood

Proceedings of the National Academy of Sciences, 101 (21), 8174 – 8179

Alcohol Use

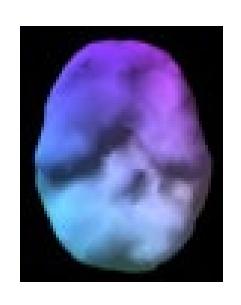
15-year-old male non-drinker 15-year-old male heavy-drinker



Brain activity while performing a memory task. Heavy drinker is sober during this test.

Smage from Susan Tapert, PtD, University of California, San Diego

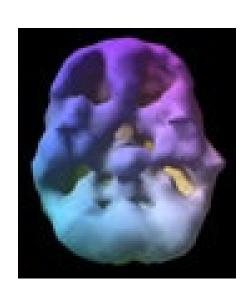
Marijuana Use



Normal

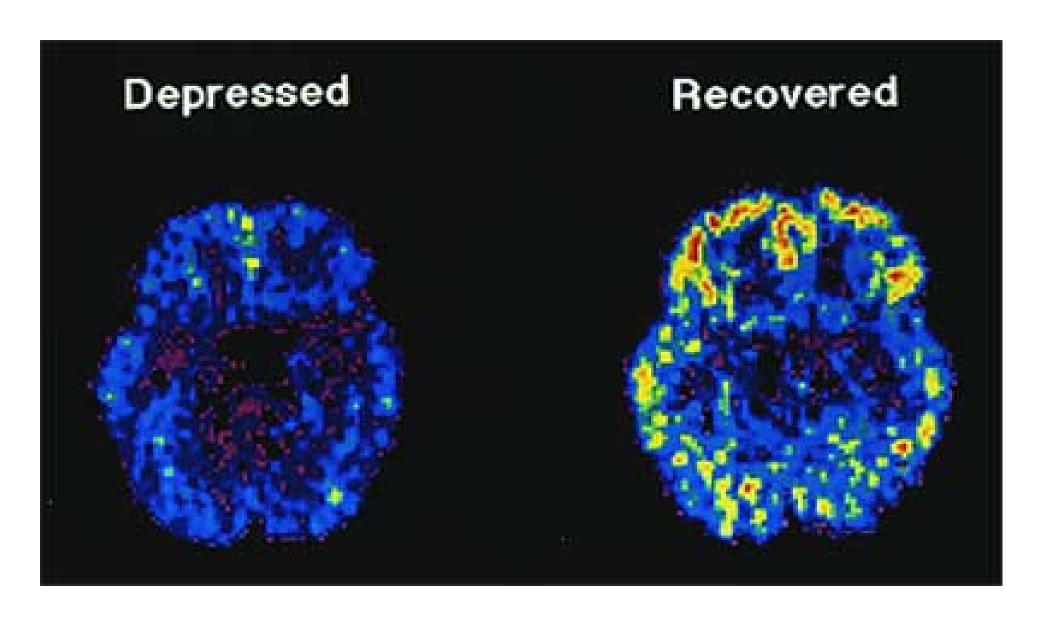


16 y/o — 2 year history of daily abuse.

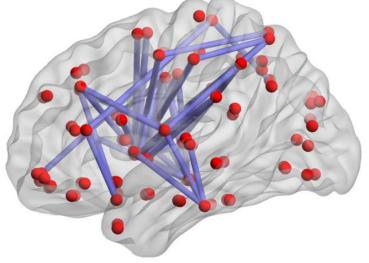


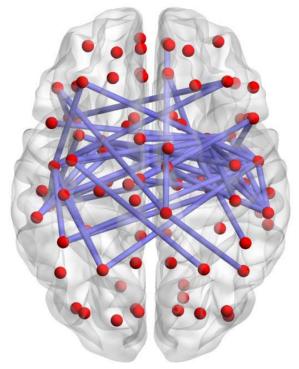
18 y/o – 3 year history of 4 x week use.

Depression



Technology Overuse





Adolescents
with internet addiction
display altered brain
functional connectivity and
decreased connections
within all three
major cerebral lobes
involved.

Fifth Prevention Science

- 1) Consistent Education in Schools & Home
- 2) Prosocial Activity
- 3) Regular Family Dinners
- 4) Pro-active Community Action
- 5) Brain-based Praise
- 6) Create Family Code of Ethics
- 7) Give Consistent Consequences: B-Mod
- 8) Treat Problems Immediately



Sixth Brain based Praise

Executive Functioning



Birth/Elementary/Middle

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- Working Memory
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- Selective Attention
- Coordination

Middle/High School/Age 25

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- Impulse Control
- Problem-Solving
- Decision-Making
- Judgment
- Emotion Regulation
- Frustration Tolerance
- Ability to Feel Empathy

Performance-Based Praise

Nice job!

Good work!

Intelligence-Based Praise

You're so smart!

That will be no problem for you because of your IQ!



Thank you for calming down so quickly!

I appreciate that you did that without having to be asked.

I really liked the empathy you showed your sister today!

The way you solved that problem was amazing!

Tell me how you did it!

Executive Function Building Scripts

Scripts for Building Abstract Thought

What if something bad happened?

What could the short-term and long-term consequences of alcohol and drug use be?

Why do you think people use drugs or alcohol to change how they feel? Do you think it is because they cannot cope naturally?

We understand your perspective regarding the positive uses of marijuana. What do you think our perspective is? How would we be affected if you used it?

What are some possible solutions? What are the pros and cons to your solution?

What do you think someone might be thinking who feels suicidal? How might suicide affect that person's loved ones?

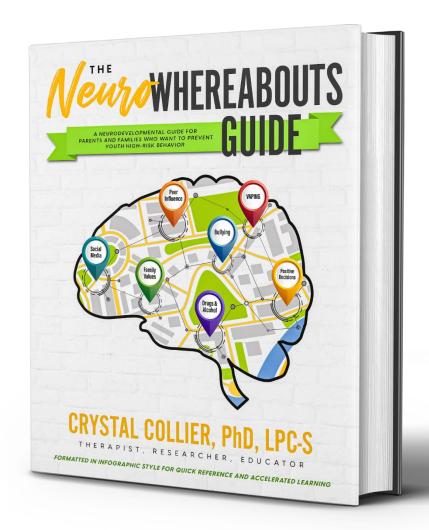
Tell me more. I may not agree with you, but I want to understand your perspective.

Could violent videos affect a player's behavior in real life? How so? Not you? Tell me more.

The values in our Family Code bring us together in unity. Why do you think unity prevents highrisk behavior? How does unity affect you? What could restricting food, as seen in anorexia, or cutting, as seen in self-injury symbolize?
Low self-worth? Self-hatred?

Seventh Create & Family Code

These steps and the Family Code are based on the research and activities found in the NeuroWhereAbouts Guide: A Neurodevelopmental Guide for Parents and Families Who Want to Prevent Youth High-Risk Behavior By Dr. Crystal Collier





1. Brainstorm family values

Values: Something important to you and your family

Compassion

Honesty

Empathy

Responsibility

Respect

Kindness

Generosity



2. Decide on the "no's"

What risky behavior do we say 'no' to in our family?

Why do you say 'no' to these risky behaviors?



3. Combine into 3-4 sentences

In our family, we		•
	We say 'no' to	
because we		· · · · · · · · · · · · · · · · · · ·

Eighth How to Use the Code

Record date discussed below. Alcohol Use	
Dinge Drinking	
Barnography Use	
Suicidal Benaviors	
Self-Injury	
Dating Violence	
Marijuana Use Nicotine and Tobacco Use	
Lling	
· in a linder the	
Risky Sexual Bellator E-Cigarette Use and Vaping Bullying and Cyberbullying Bullying and Rehavior	
- or sellulia	
Widoo Game Addies	
Technology Overuse	
Techno.	

High-Risk Behavior Checklist

Conversation Starters

Conversations about risky behavior can be awkward. Use the 'Conversation Starters Calendar' on Conversations about risky behavior can be awkward. Use the 'Conversation Starters Calendar' of these two pages to help normalize discussions about these subjects and increase family unity.'5 these two pages to help normalize discussions about these subjects and increase family unity.

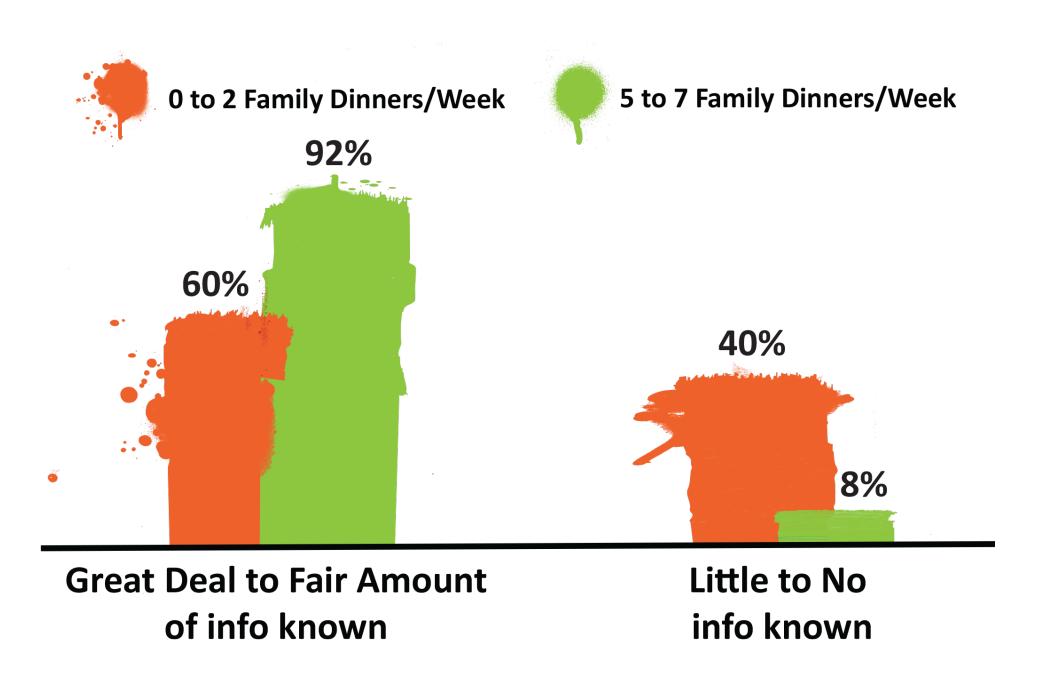
Prevention month, week and day themes can be used to bring up topics in order to (a) teach Prevention month, week and day themes can be used to bring up topics in order to (a) teach prevention science information specific to each topic from this guide, (b) discuss family expectations or experience in formation specific to each topic from this guide, (b) discuss family expectations or experience in the Earning Code and (c) help youth feel more comfortable charing honorthy about prevention science information specific to each topic from this guide, (b) discuss family expects outlined in the Family Code, and (c) help youth feel more comfortable sharing honestly about

prevention science informs prevention informs	
prevention science information prevention science information science information prevention science information prevention in the Family Code, and (c) help your prevention in the Fami	
outlined in the Fairning potentially difficult issues regularly. potentially difficult issues regularly. February 1 - Self-Injury Awareness Day	
potentially and self-injury Awards	
for Id Teell Mon	
Weiling Day	
9 - National Law Enforcement Appreciation Day Appreciatio	
The summan I - and weeks	
11 - Resking Awareness Day	
11 - National Human Trafficking Awareness Day Trafficking Awareness Day 12 - National Youth Day 12 - National Hugging Day (begins the week of (begins 3rd week) (begins 1 dependence)	
21 - National aflife Day (Laptine's Day)	
Calchration of Valery Candom Week 11 (first Friday)	
National Holocal National Indiana National Indi	
17/- Ince Day (hagins valette and dags	
Random According 1/th) I was and Week	
128 - Date Gamping	
Week (begins 3rd 3dhoth) Week (begins 3rd 3dhoth) Awarenta	
- National Mentoring Month - National Mentoring Month - Last Monday - Teen Dating Violence - Teen Dating Violence - Teen Dating Violence	
May say Something	
Day 1 - Nation	
April No Diet By Nice Day	
7 - World Health Day 6 - International Day of - Global Day of Parents Golden	
15 - International Loving ar Day	
7 - World Health Very 10 - National Siblings Day 10 - National Drug Take Back 25 - National Drug Take Back 25 - National Missing 25 - National Missing 25 - National Missing 26 - National PTSD Awareness 27 - National PTSD Awareness	
25 - National Drug Take Day Children's Day Children's Day Children's Day	
Day Day	
Day 1 - World No Tobacco - Day 29 - Hug Holiday 29 - Hug Hospial Media Day	
- National Alconol State - World Laughter Day (15t 30 - World State 50 - World State 30 - World Stat	
	1
week) National Teacher Awareness National Teacher	1
	1
Month Awareness Appropriate Ap	1
	_
Month - National Alcohol Awareness Month - Distracted Driving Awareness Month - User Awareness Month - Women's Health Month	
Month - Distracted Driving Awareness Month - Women's Health Month	
- Women's red	
Month Awareness Month	
Month - Stress Awareness Month	



Family Dinners





THE CAMBLING TALK

Research indicates that many problem gamblers begin gambling as young as ages 8 to 11.141-143 Around that age, begin discussing this issue by asking the questions in the box at the right, creating family rules about gambling games, and praising them for demonstrating good Executive Function skills, such as accurately perceiving the risks of gambling and predatory monetization schemes 144 Definitions can be found in Ch. 4 and 'Playing the Odds' game is below.



Play the Odds Game

What do you think the odds are of...

- 1. Winning the lottery?
- 2. Being hit by lightning?
- 3. Winning an online poker tournament?
 - 4. Being bitten by a shark?
 - 5. Getting a royal flush?
- 6. Picking the winning horse at a track?
- 7. Hitting the jackpot on a slot machine?
 - 8. (Add your own odds questions)

Gambling Prevention Questions

- What is gambling? What should our family rules about gambling be?
- How old do you have to be to gambl in our state?
- How do video games gamblify game play? What is a predatory monetization scheme?
- What would you do if, when you a playing a free game, it prompts ye to buy something?
- If someone loses money at gaml is it due to bad luck or the odds against winning?
- What are odds? What does it r when they say 'the house alwa wins'?
- What are the emotional outc losing money to gambling?
- What type of betting or wag allowed in our family? Do y parental permission to buy tickets?
- How much money would comfortable losing at garr
- Is it okay to bet on a frier of basketball? Or, on wh football game?
- What would the consec you used your parents' to make an online bet games?
- What would you do o pressured you to ma something?

THE PORNOGRAPHY TALK(S)

thurble but but

PORN PREVENTION BY AGE

		FIENACAITA		
		LLEWIENTARY	(6 to 9 years, dep	pending upon maturity level)
		Discuss the diff	fores	and upon maturity level)
		give examples of Define the work sexual images	of good pictures li d pornography: Pr	good pictures and bad pictures; ¹⁴⁰ ike school photos or puppy videos
		Define porpogra	ep covered with c	clothes
	П	yucky or uncomi	fortable to see sor	re' because it may make kids feel
		Tell them they wi	and look away, th	hen tell a parent or a little: Show
	1	Let them know the they tell you if the	ct their brain, they nat you will stay ca ey see pornograph	should look away
	^	MIDDLE SCHOOL	(10 to 13 years)	
	N L	Vhen young poor	1.	
] Va	ames, take the op alidate that being	portunity to revie	policit scenes on TV, media or video we the topic of pornography rnography is normal, but that
	As	k them to refere	ange their brain in	negative ways
	Set	t limits regard	ners in case they se	e tries to show it to them, and to
J	pic Let	tures of your priv children know:	rate parts. No 'self	ee it by accident not allow others to take less' of your own private parts.
	1)	Pornet		Private parts.

- 1) Perpetrators use pornography to manipulate children because they know how curious kids can be
- 2) Viewing pornography is linked to child sexual abuse because kids may want to try the things they see, and don't know the dangers
- 3) Pornography changes the brain and can cause addiction

HIGH SCHOOL (14 to 18 years)

Ц	Monitor their technology for man
	Monitor their technology for pornography use, and let them know they will incur a consequence if they watch pornography Discuss the potential social and emotional consequences of pornography use and addiction

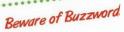
THE MEDIA TALK

DANGERS OF DOING 'RESEARCH' ON THE INTERNET — The Internet contains hundreds of p drug and pro-risky behavior websites that cherry-pick research to bolster their stance, resul reduced perceived harms and increased use or engagement. Teach children how to critical media for buzzwords and conflicts of interest, and how to spot reliable and objective source.

Marketers and advertisers use buzzwords to entice buying behavior and divert attention from adverse public health effects. Some may rely on research based

on limited evidence, or on research conducted by investigators that have conflicts of interest.

In the era of 'fake news', it may be confusing to know where to locate accurate information, at least the most accurate and unbiased as it can be. The list below describes information sources in order of most to least reliable.



Natural · Pure Clean · Organic Cures or Treats Illr Cure-All · Miracle Growing Body of Ev Holds Promis Generally Recognize Healthier Ch

SYSTEMATIC REVIEW — An article or book that summarizes research conduc area or research topics, including carefully designed studies, clinical trials, or that includes reliable sources of evidence to guide practice.

PEER-REVIEWED JOURNAL ARTICLES OR BOOKS — Research articles or bo scientists and experts, then reviewed by many other experts in the field to and scientific validity before publication.

PROFESSIONAL ARTICLES OR BOOKS — Research, knowledge or practice written by professionals or experts in the field.

OFFICIAL GOVERNMENT OR UNIVERSITY WEBSITES — Information pro institutions and organizations.

NEWSPAPER OR MAGAZINE ARTICLES — Information gathered by re writers who fact-check information from reliable sources, but may p

WEBSITES OR BLOGS — Information or editorial opinions written by business owners who may or may not have a biased agenda or financial stake in the

THE MEDICINE TALK



MEDICINE — A substance or formulation of ingredients used to treat a disease or condition.

FOOD AND DRUG ADMINISTRATION (FDA) — A government agency responsible for ensuring that medications are safe and effective. This organization conducts scientific testing to determine if the benefits of a drug are greater than any potential harmful effects. If a drug fails to meet FDA standards and approval, it cannot be sold as a medicine in the United States.

What it is

Medicine is a tool to be used cautiously. It should be obtained from healthcare professionals who have been trained to know the benefits and potential risks of drugs.

Many medicines can have harmful side effects, and some have the potential to cause addiction when overused, such as certain pain medications. They should be taken only when necessary, and only in amounts directed by the prescribing professional.

For a medicine to be considered reliable, it should meet certain standards, such as containing well-defined, measurable effective ingredients that are identical in each dose.

What it is Not

Medicine is not a 'street drug' that is being depicted as medicinal, such as marijuana, pain medications and amphetamines taken without a prescription. Some 'street drugs' have medicinal properties *and* potentially harmful effects.⁷⁰

The FDA has approved two medications that contain ingredients derived from marijuana, but has not approved marijuana itself as a medicine. Scientific research has been conducted on these medications for treatment of the symptoms caused by cancer, multiple sclerosis and HIV/

These medications do not cure illness but only treat their symptoms. If you have any of these illnesses, consult a doctor regarding the safest, most appropriate medicine.

Signature

THE WHEREABOUTS LOG

The WhereAbouts Log helps keep track of your children's peer contacts, peer parent information, and peer parent communications. Feel free to make copies for every peer household.

and peer parent comme	
Peer Name	
Notes	dina

Peer Parent Discussion Topics Bedtimes and behavior expectations In-person monitoring policy Video game ratings policy Video game ratings policy Use of technology monitoring software Technology time limits Firearm or weapons access Drug and alcohol policy Alcohol access Prescription medication access
--

Since our children will be spending time together, I wanted to discuss some of your policies to make sure we are on the same page. May I ask you a few questions abou the rules at your house?

- What are your bedtime behavioral rules?
- We do not allow kids to hang out a hours without monitoring and che them every couple of hours. How you check?
- We only allow video games that age-appropriate for our son/da are your rules about ratings?
- Do you have technology monitoring software on your screens to alert you if the ki pornography or engage in other inappropriate Internet activities?
- We only allow 2-3 consecutive hours of video game or social media time per day weekends. Could you back us up on this rule when our child is at your home?
- If you have firearms or guns, do you keep them in a locked cabinet to restrict access.
- We have a 'No drugs or alcohol policy' and wanted to find out how you feel about this topic:
- Do you have a mini-bar or keep alcohol where kids could access it?
- Are your prescription medications in a medicine cabinet that could be in reach of my child?

Peer Name Peer Address Peer Parents' Names Peer Parents' Phone Numbers Notes	
Peer Name Peer Address Peer Parents' Names Peer Parents' Phone Numbers Notes Notes	
Peer Name Peer Address Peer Parents' Names Peer Parents' Phone Numbers Notes	
Peer Name Peer Address Peer Parents' Names Peer Parents' Phone Numbers	
Notes this topic?	

Ninth Behavior Modification

What if?

We hope you follow our family's code but, in case you make a different decision...tell me. You will have a consequence but, that consequence will be really small if you tell. It will double or triple if I found out that you broke our family code from someone else. Honesty is the best policy but, I know your brain is developing and you may make some bad decisions. I have to be your frontal lobe until you grow one of your own!

BEHAVIOR MODIFICATION

B-Mod Guidelines

- KEEP IT SIMPLE. One page. Simple language results in less nagging, reminding, or manipulating. Use one row, if that is all that is needed, and no more than 3-4 behaviors.
- **KEEP IT POSITIVE.** Write behavioral expectations in positive terms and enlist youth to help fill in rewards.
- the consequences set out in the contract consistently. Giving rewards back too soon, or failing to institute consequences, results in longer extinction bursts.

BEHAVIOR MODIFICATION (B-MOD)

— A technique that uses rewards and consequences to shape or modify behavior based on B. F. Skinner's Operant Conditioning Theory.^{33,34}

SHAPING — A technique that involves patiently rewarding behaviors that are close to the target behavior until the target behavior is achieved. 33,34

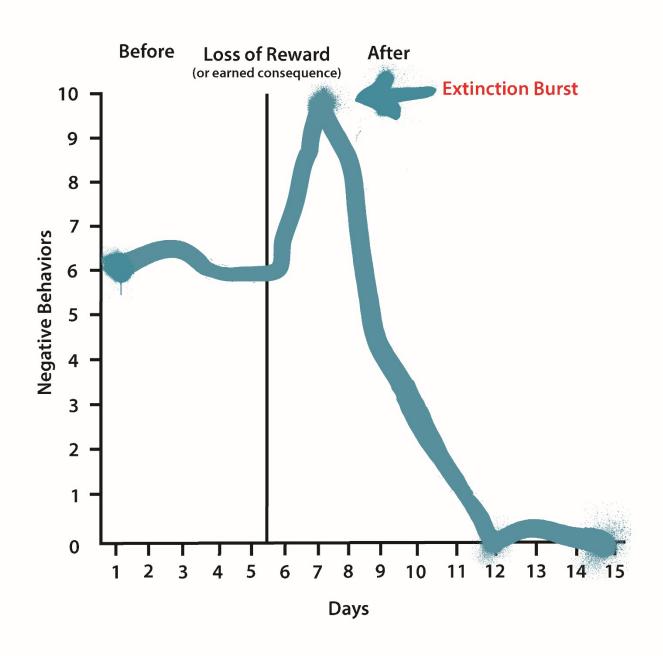
EXTINCTION BURST — A temporary *increase* in a behavior that a B-Mod contract is meant to decrease — this is a normal and expected reaction when a consequence is earned, or a reward is lost

B-Mod Contract Sample

Behavior	Rewards (Earnings)	Consequences (Losses	3.
1. Be sober	Cell phone usePeer privilegesPrivacy (such as having a door)	Cell phone use Peer privileges Privacy (no door on roor Emergency family sessi (earned this one)	
2. Follow rules (includes doing chores)	AllowanceCell phone useTechnology privileges	Allowance Cell phone use Technology privileges	
3. Get good grades	Cell phone useTechnology privilegesNew games or clothing	Cell phone useTechnology privilegesNew games or clothing	

1. • • • • • • • • • • • • • • • • • • •	Rewards	Consequences
3.		
Developing Person's Signature	:	
Parents or Guardian Signature		Date
Signature		Date

Be Prepared...



Tenth Tooks to Use Consistently



Drug Testing

- #1 Refusal Skill
 - Start at 11/12
- Frequency 1-2/yr.
- Increase if suspicious or using

Topics

Skills

Videos

Schools

Families

Students



Prevention works if done consistently! Know Your Neuro puts brain-based, social-emotional, and prevention skills training right in the hands of schools and caregivers. Designed to be integrated into a school's health or homeroom curriculum, Know Your Neuro videos and class activities can be easily integrated and tailored to fit the developmental needs of K-12 youth.

Learn How



Get the parenting tools that will set you and your child up for success!

Learn More

students

Find youth-friendly resources to learn how to keep your brain strong!

Learn More



Utilize brain-based skills training videos and classroom activities for every age group.

Learn More





Crystal Collier, PhD, LPC-S

(713) 254-9719

www.drcrystalcollier.com

www.knowyourneuro.org

www.neurowhereaboutsguide.com

crystal@drcrystalcollier.com

