

FASD: “Now What?”

Understanding FASD in the Law, Order and Justice Setting

February 25, 2020

Meera Sidhu, Peel FASD Worker

**“My own brain
conspired against
me”
-R.J. Formanek**

Objective

1. To understand the impact of prenatal alcohol exposure.
2. To reduce the stigma and increase awareness around FASD.
3. To understand the behaviours seen as a result of having FASD. Thus, understanding interactions with the law and justice system.

Definition¹⁵

FASD is not a mental health diagnosis. It is a...

brain-based

invisible

disability



Start to think about FASD as a...

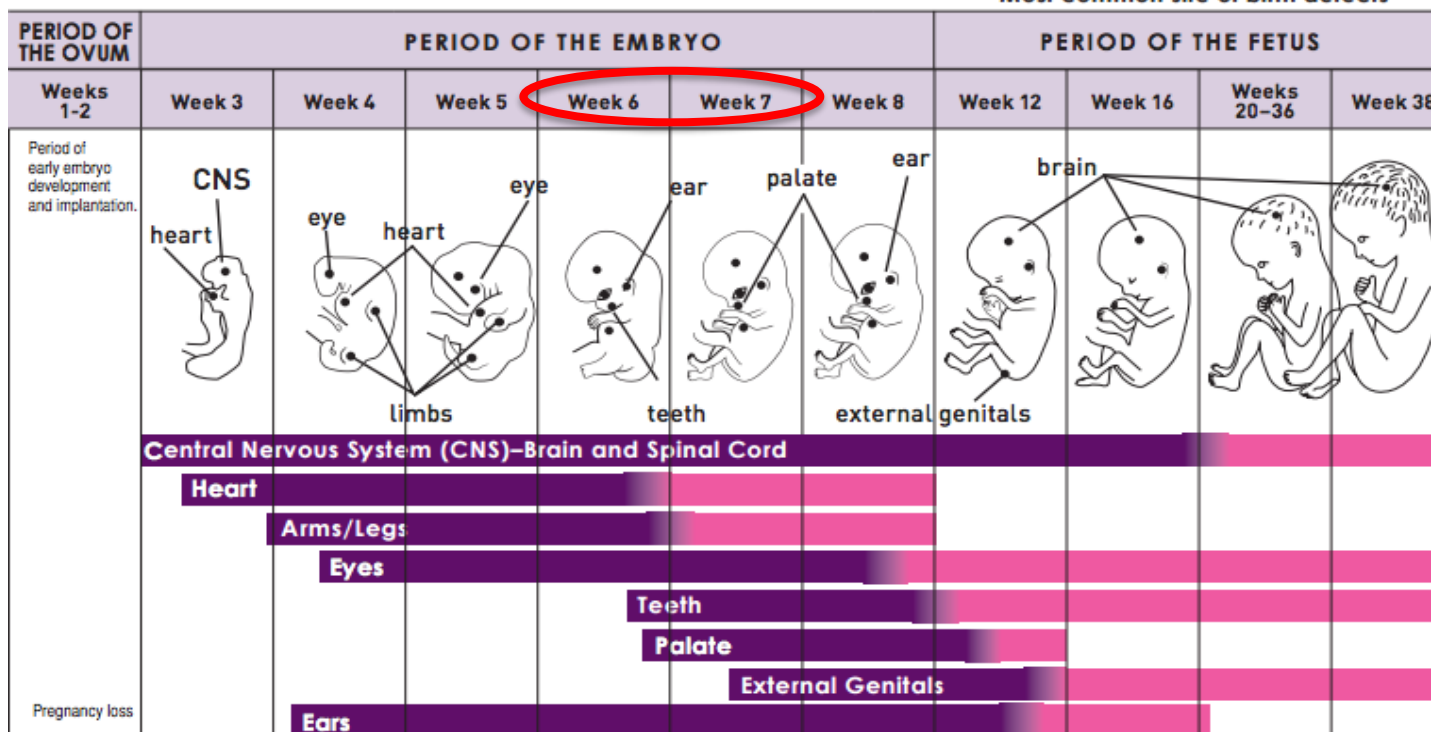
Permanent Brain Injury

Fetal Development and Alcohol 2-10, 12, 35

FETAL DEVELOPMENT CHART

This chart shows vulnerability of the fetus to defects throughout 38 weeks of pregnancy.*

• = Most common site of birth defects



Period of development when major defects in bodily structure can occur.

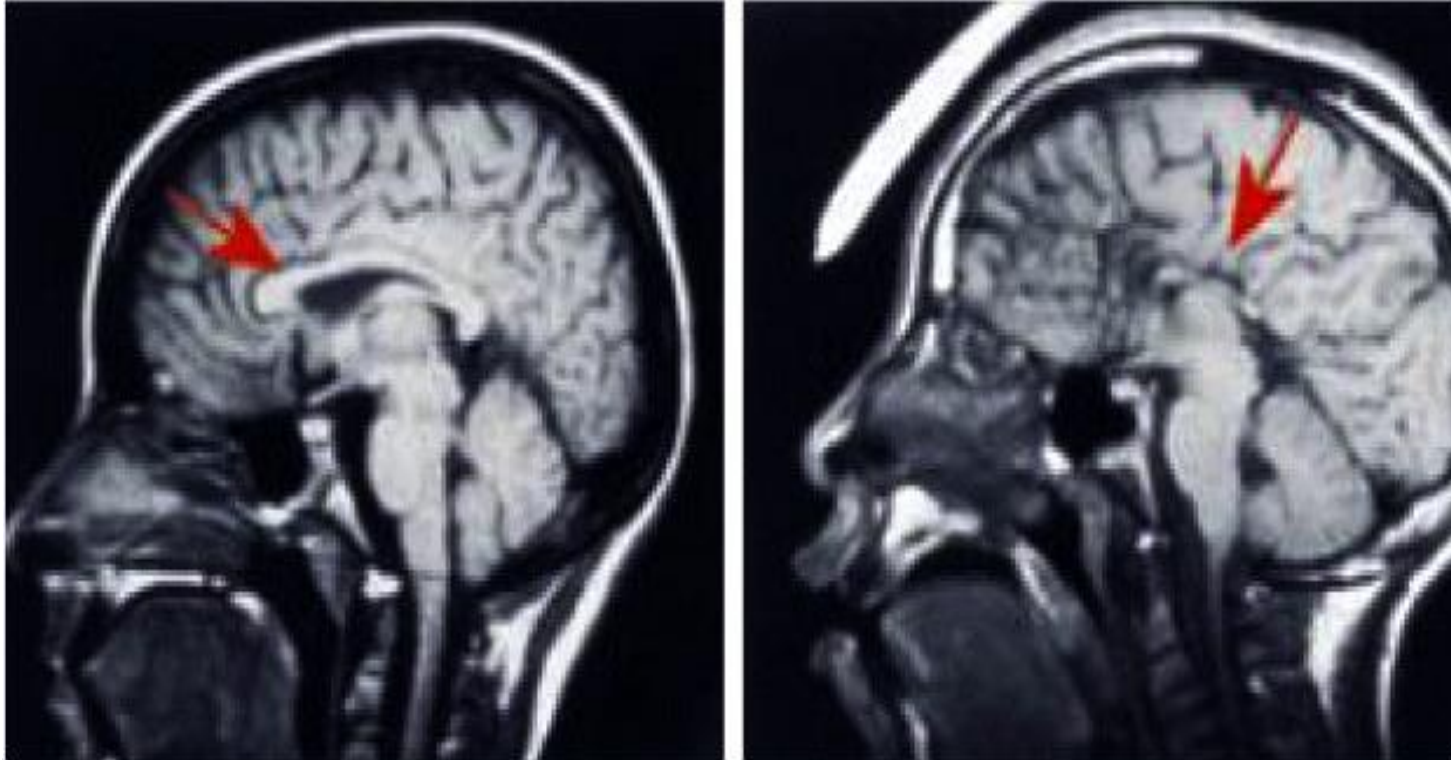
Period of development when major functional defects and minor structural defects can occur.

Adapted from Moore, 1993 and

the National Organization on Fetal Alcohol Syndrome (NOFAS) 2009

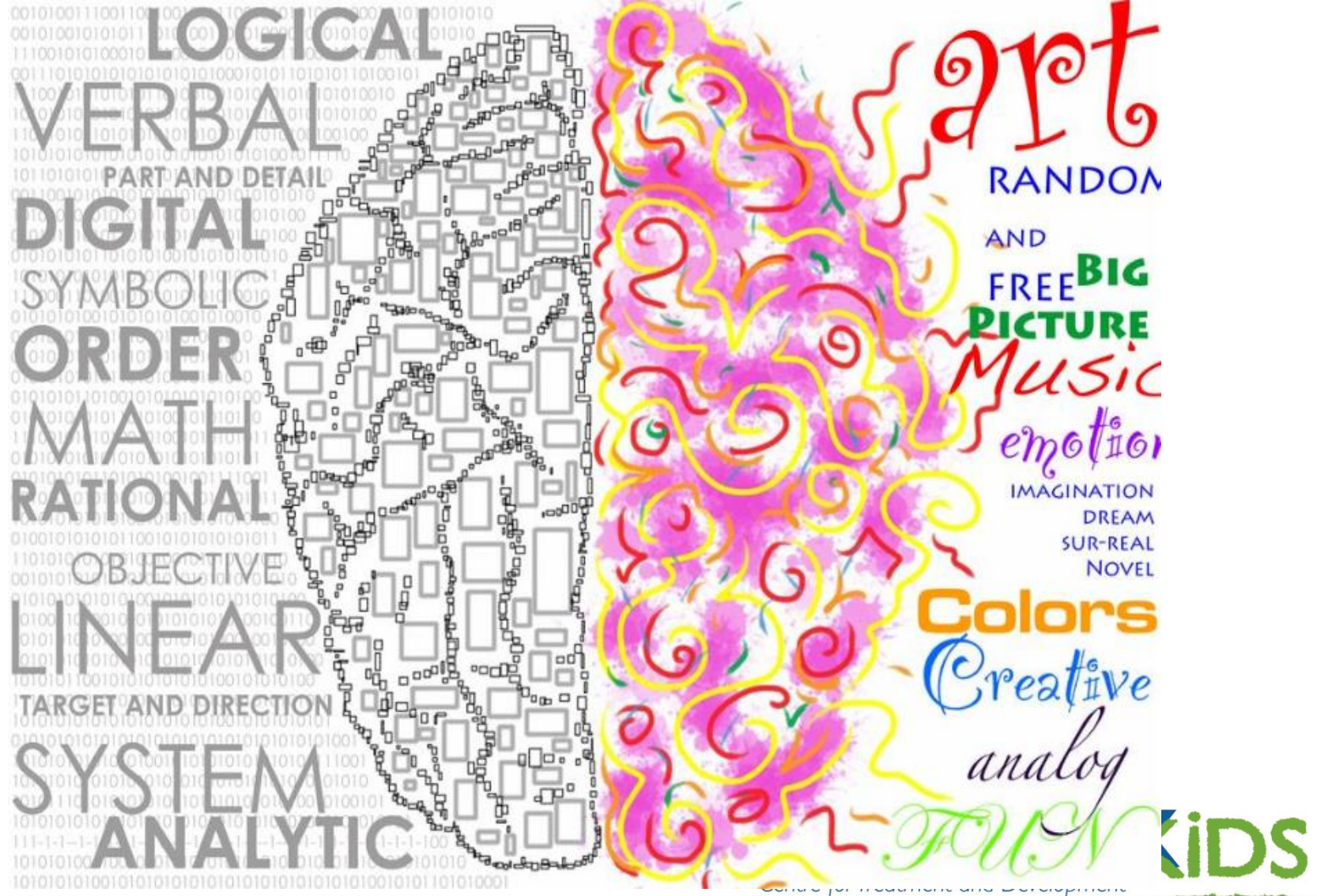
*This fetal chart shows the 38 weeks of pregnancy. Since it is difficult to know exactly when conception occurs, health care providers calculate a woman's due date 40 weeks from the start of her last menstrual cycle.

Fetal Development and Alcohol 2-10, 12,35



*Left is (MRI) of the brain of a normal adolescent (age 14).
The red arrow points to the corpus callosum.
The MRI on the right shows the absence of a corpus callosum.*

Fetal Development and Alcohol 2-10, 12, 35

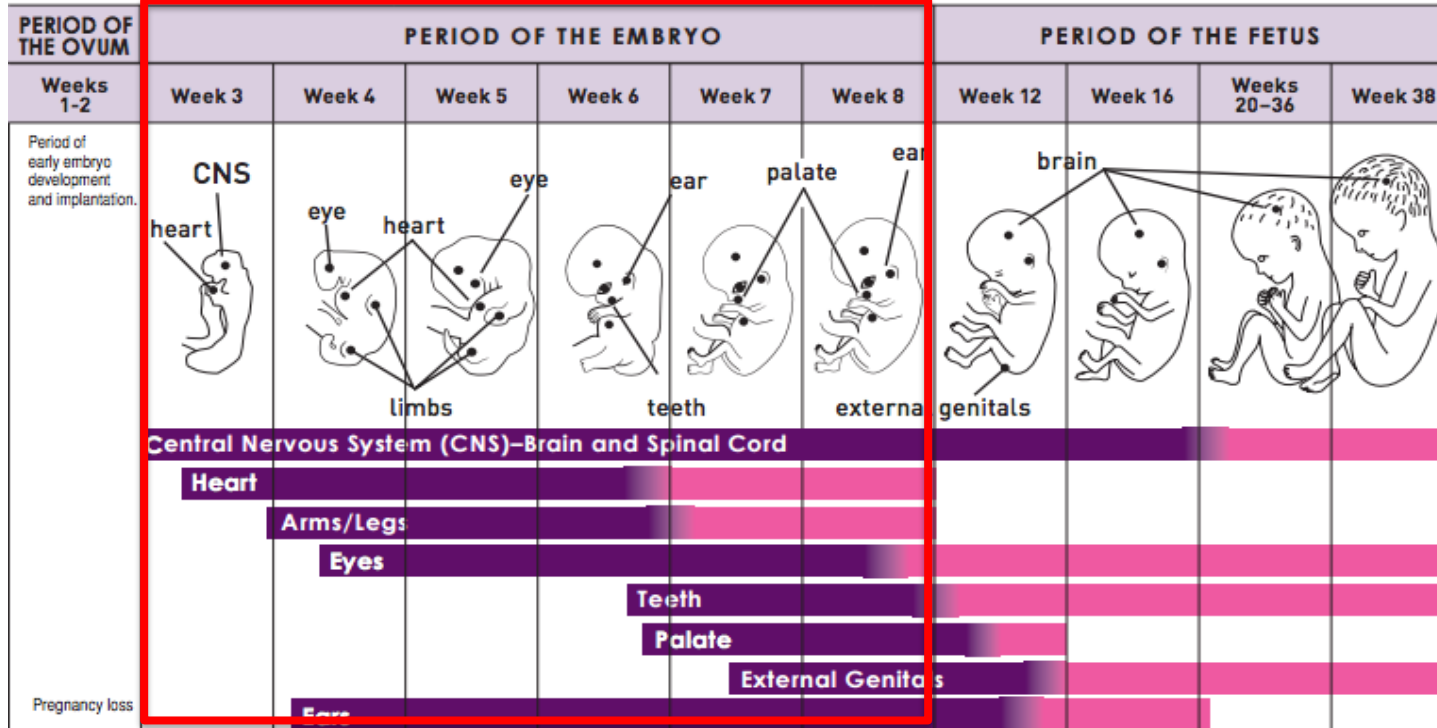


Fetal Development and Alcohol 2-10, 12, 35

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 *This fetal chart shows the 38 weeks of pregnancy. Since it is difficult to know exactly when conception occurs, health care providers calculate a woman's due date 40 weeks from the start of her last menstrual cycle.

Approx. **61%** of pregnancies for Canadian Women are unplanned.

Worldwide 55% of women abstain from alcohol but only **29%** in North America.

Prevalence⁴³

FASD is recognized as one of the leading known causes of developmental disability in the western world. Compared with other common disabilities:

2.5 x

More common than Autism

19 x

More common than Cerebral Palsy

28 x

More common than Down's Syndrome

40 x

More common than Tourette's Syndrome

In Canada, although FASD is most prevalent, it is the
least understood
least supported
grossly underfunded

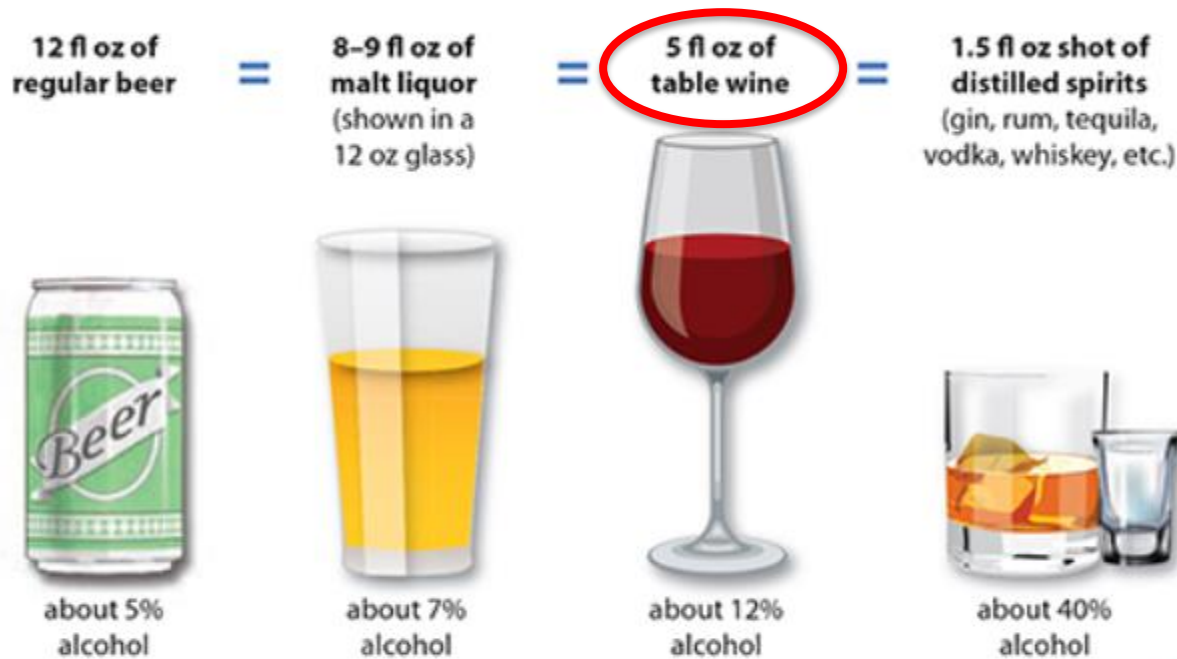
Prevalence of FASD^{33,34}

Based on the World Health Organization, new FASD prevalence is approx. between 2-3%

Peel Region Population Profile	Population
Total Population of Peel:	1,381,739
Estimated Total # of individuals with FASD in Peel	27,635
Estimated Total # of children/youth (0 – 18 years) with FASD in Peel	7,013

Standard vs. Binge Drinking³⁶⁻³⁷

What Is a Standard Drink?



Each beverage portrayed above represents one standard drink of "pure" alcohol, defined in the United States as 0.6 fl oz or 14 grams. The percent of pure alcohol, expressed here as alcohol by volume (alc/vol), varies within and across beverage types. Although the standard drink amounts are helpful for following health guidelines, they may not reflect customary serving sizes.

The National Institute of Alcohol Abuse and Alcoholism defines binge drinking as:

- Women consumes 4 or more standard drinks in 1 sitting

Understand that...



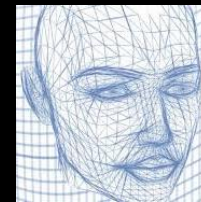
What does FASD look like?¹⁵

Prenatal Alcohol Exposure results in...

Structural
Changes in the
Brain



Physical



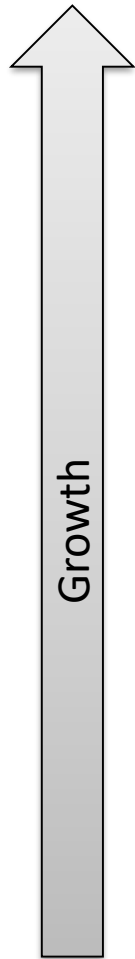
Cognitive



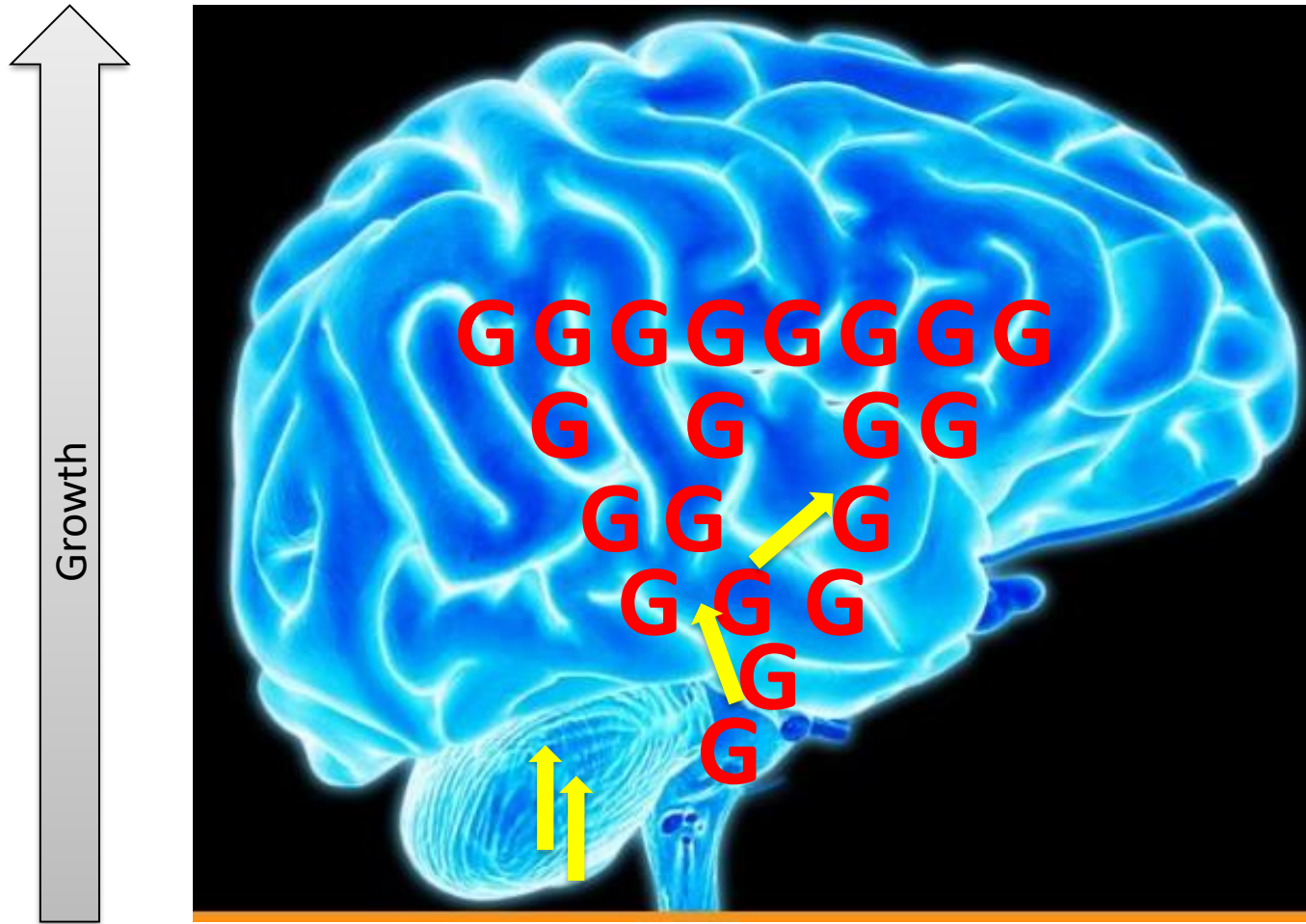
Behavioural



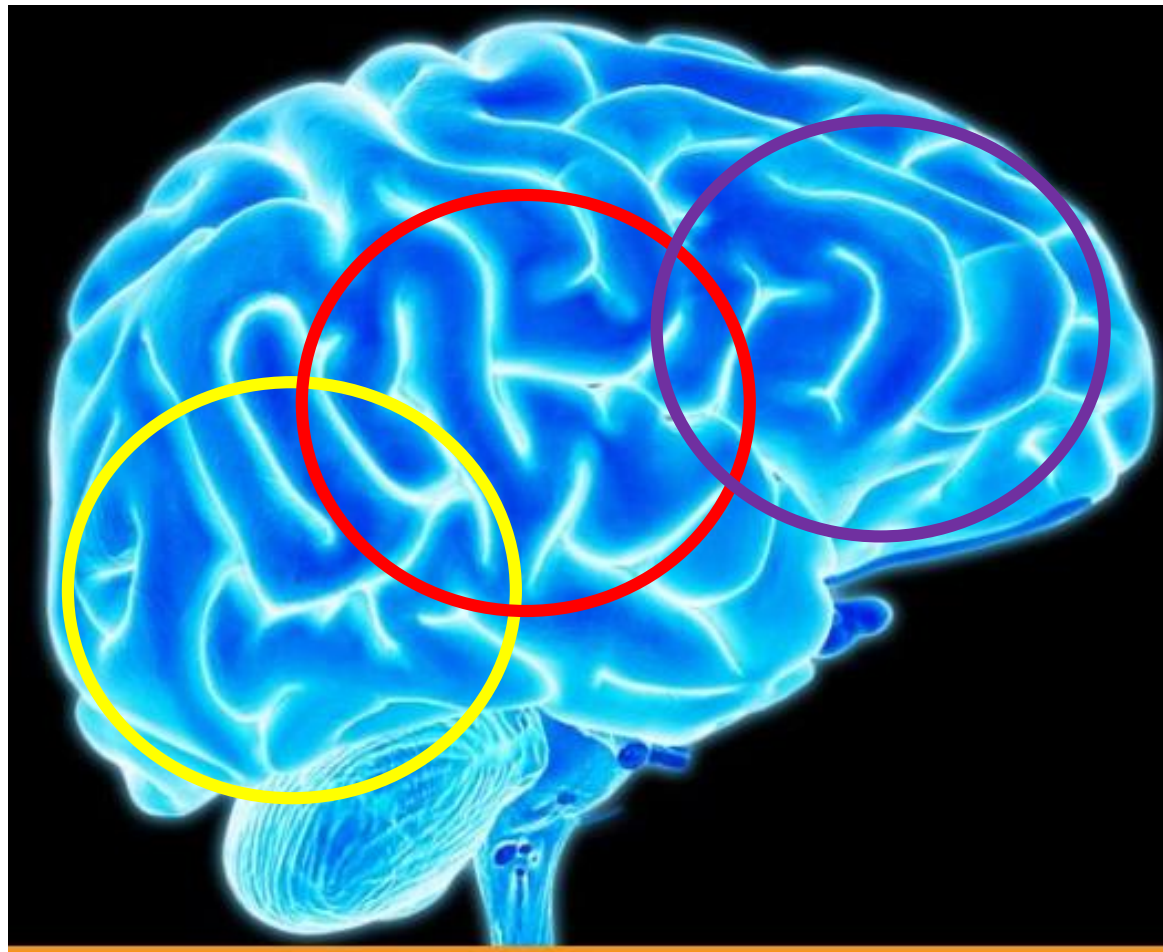
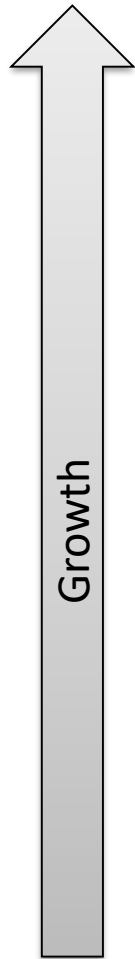
Structural Changes in the Brain^{11,14}



Structural Changes in the Brain^{11,14}



Structure and Deficits in the Brain^{11,14}



Basic System:

- Heart Beat
- Breathing

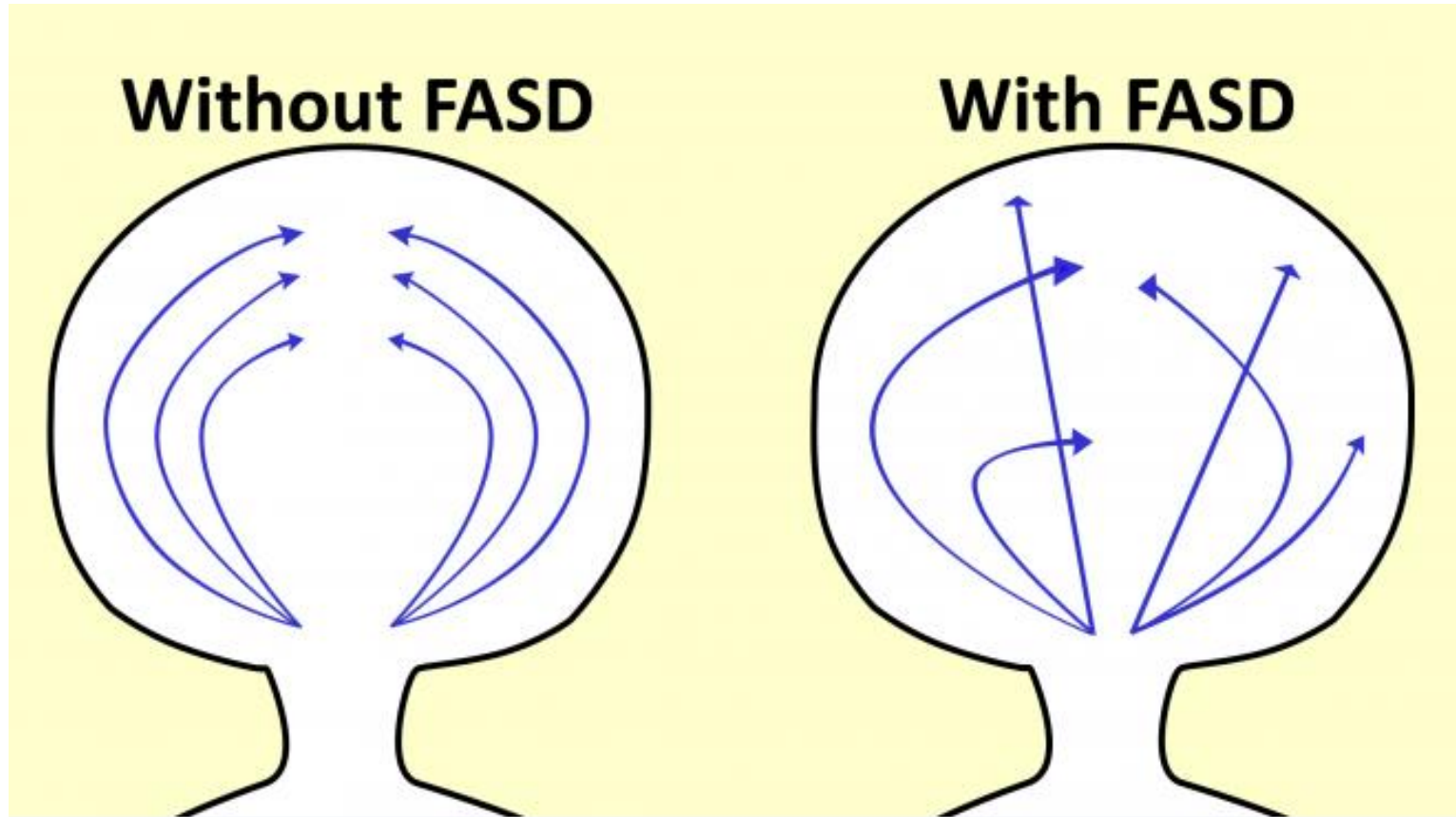
Limbic System:

- Fight or Flight Response
- Sexual Behaviour

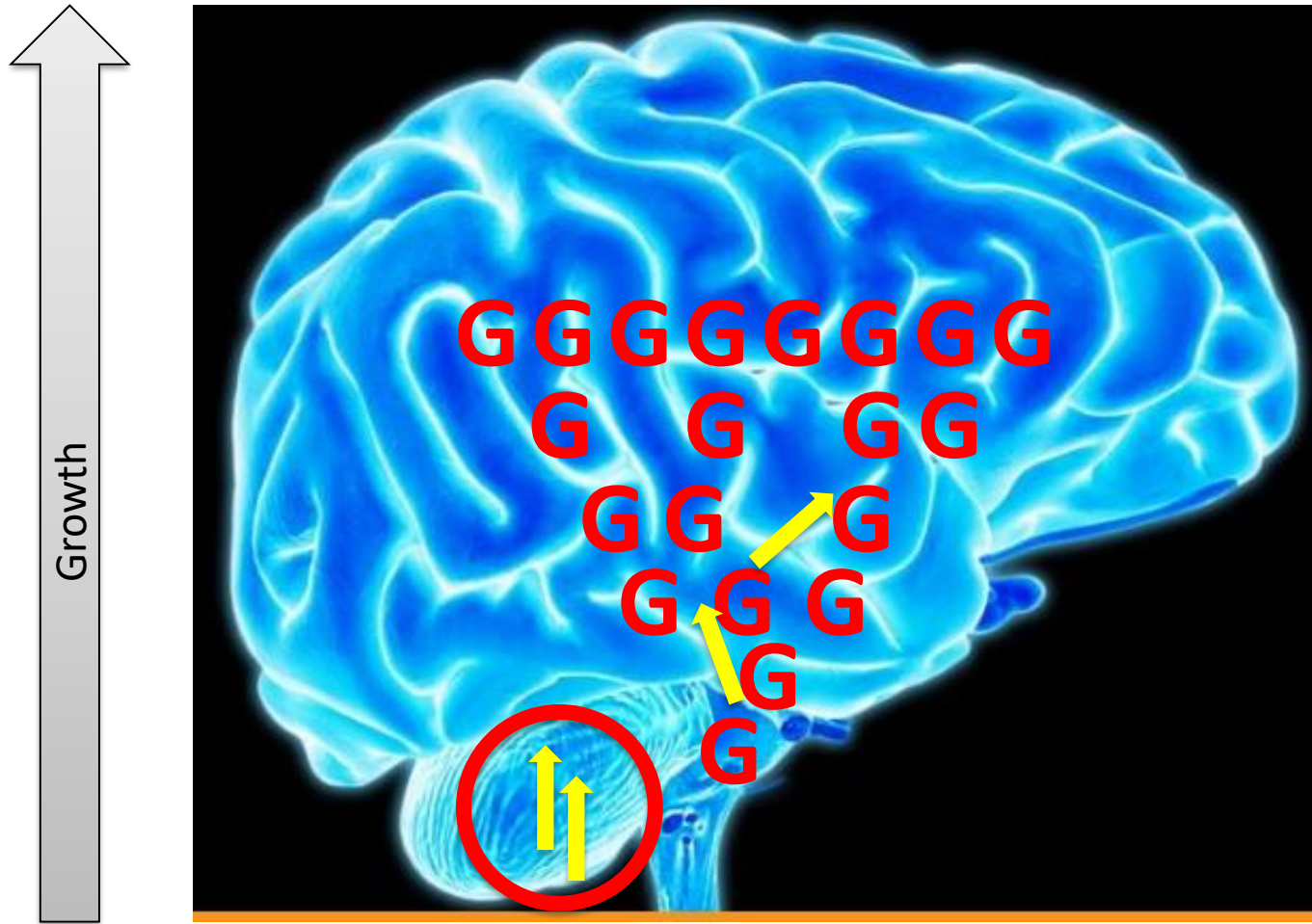
Higher Cortical Functions:

- Problem Solving
- Behaviour
- Decisions

Structural Changes in the Brain¹³

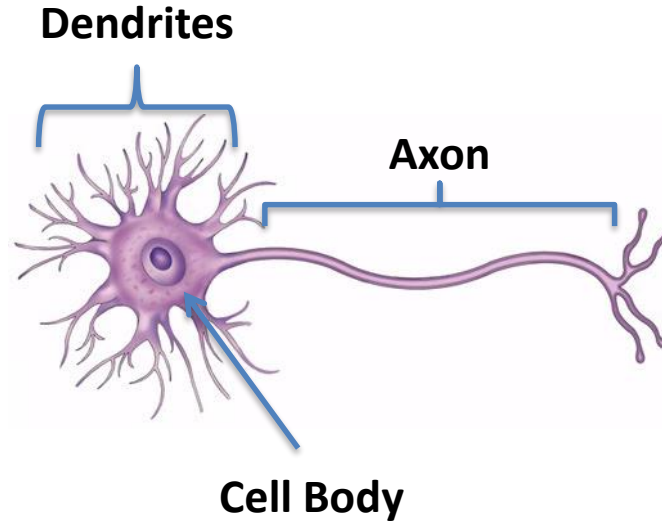


Structural Changes in the Brain^{11,14}

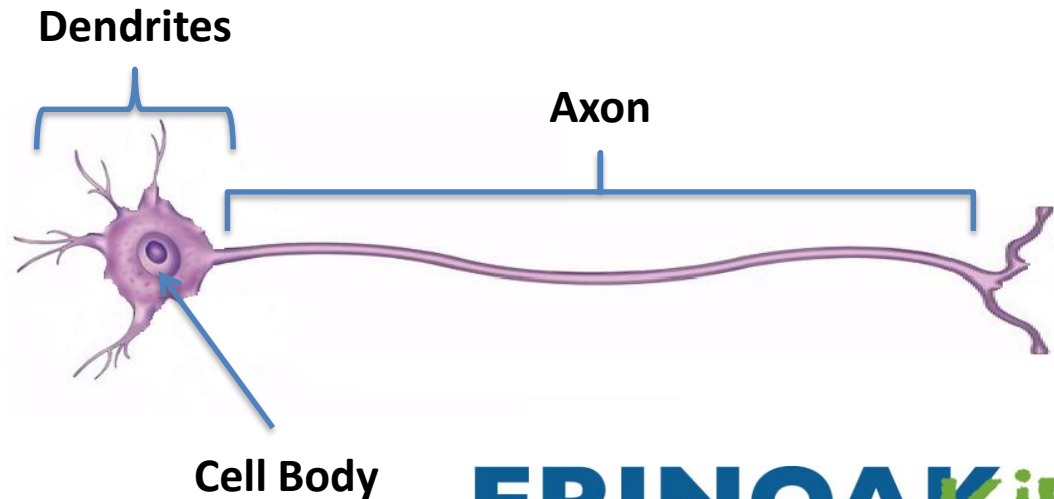


Structural Changes in the Brain₅

Unaffected Neurons



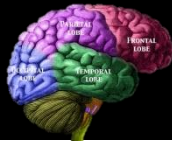
Neuron in the FASD Brain



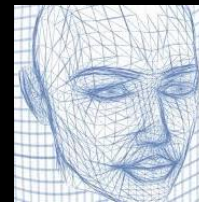
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Physical



Cognitive



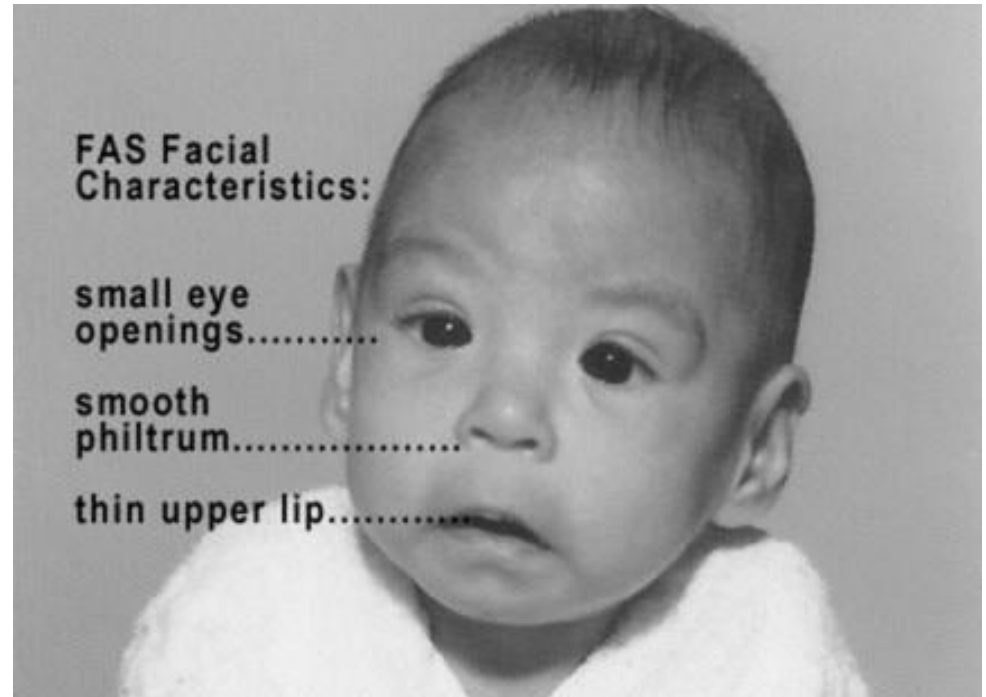
Behavioural



Sentinel Features¹⁶

Physically:

- Small birth weight
- Small head circumference
- Small eye openings
- Smooth, wide philtrum
- Thin upper lip



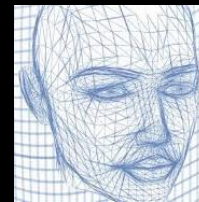
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Structural
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Physical



Cognitive



Behavioural



Cognitive³⁸

Self-Regulation

Ability to control moods, behaviour patterns, impulsiveness, attention and sensory

Neurocognitive Functioning

Ability to have full control over executive functioning tasks (memory, learning etc.)

Adaptive Functioning

Everyday skills needed to meet the demands of one's environment

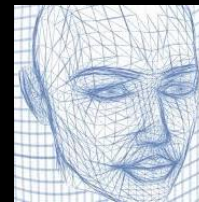
What does FASD look like?¹⁵

Prenatal Alcohol Exposure results in...

Structural
Changes in the
Brain Lead to...



Physical



Cognitive



Behavioural



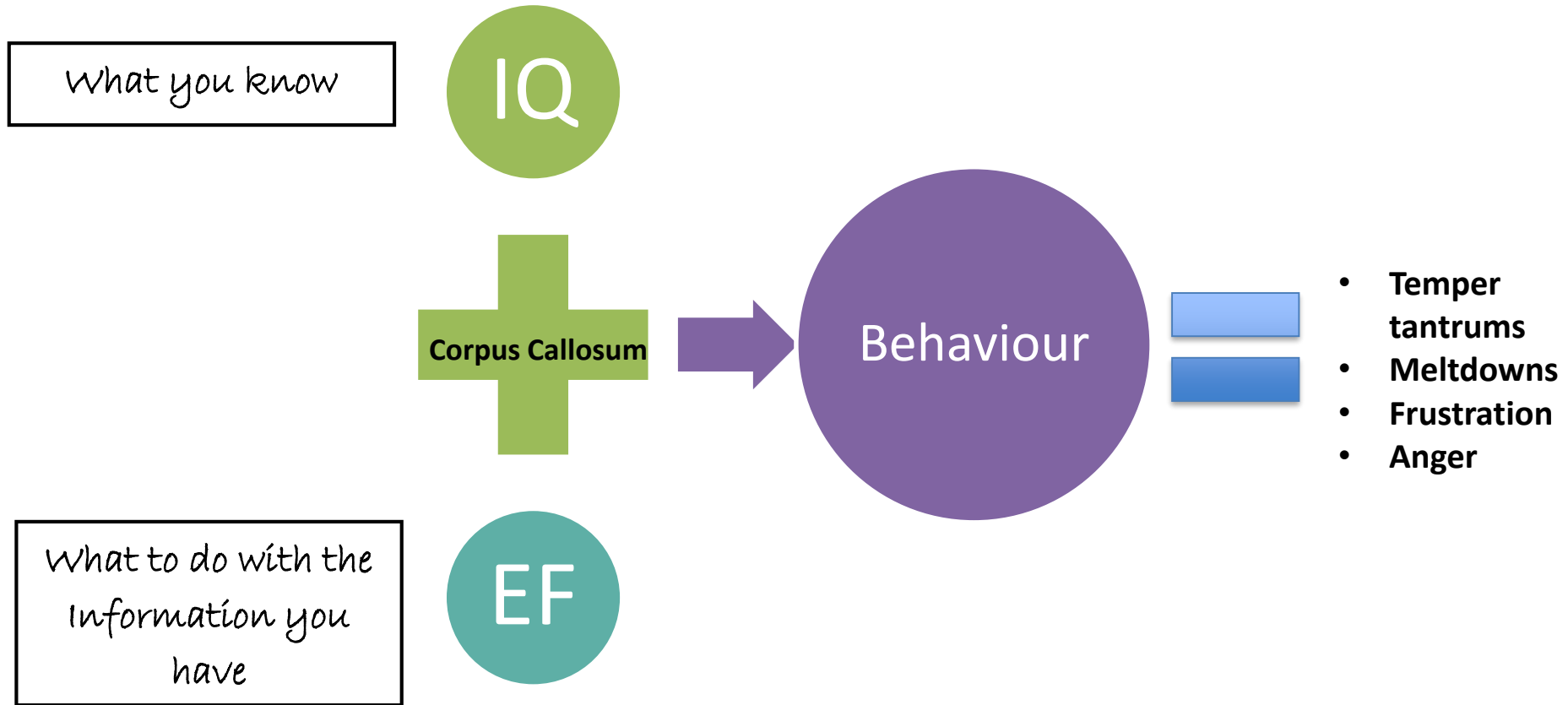
Behaviour³

Overlapping Behavioral Characteristics & Related Mental Health Diagnoses in Children

Overlapping Characteristics & Mental Health Diagnoses	FASD	ADD/ADHD	Sensory Int. Dys.	Autism	Bi-Polar	RAD	Depression	ODD	Trauma	Poverty
	Organic	Organic	Organic	Organic	Mood	Mood	Mood	Mood	Environ	Environ
Easily distracted by extraneous stimuli	X	X	X							
Developmental Dysmaturity	X			X						
Feel Different from other people	X				X					

No Impulse controls, acts hyperactive	FASD	ADD/ADHD	Sensory Int. Dys	Autism	Bi-Polar	RAD
	X	X	X		X	X
Learning lags: "Won't learn, some can't learn"	X	X				X
Increased chatter, or abnormal speech patterns	X	X	X	X		
Increased startle response	X	X				X
Often Interrupts/ Intrudes	FASD	ADD/ADHD	Sensory Int. Dys	Autism	Bi-Polar	RAD
	X	X	X	X	X	
Exceptional abilities in one area	X		X	X		
Guess at what "normal" is	X		X			
Lie when it would be easy to tell the truth	X			X	X	
Problems with Social Interaction	FASD	ADD/ADHD	Sensory Int. Dys	Autism	Bi-Polar	RAD
	X			X	X	
Is often angry and resentful	X				X	X

IQ vs. Executive Functioning (EF)^{12,30}



In FASD, the corpus callosum is affected. Therefore, the two hemispheres of the brain cannot communicate well. Children with FASD know a lot but are unable to access/apply the information they do have.



**THINK BRAIN NOT
BEHAVIOUR**

Behaviour³¹

- No concept of ownership
- Impulsivity
- Planning, Connecting cause and effect and taking responsibility
- Social interaction and Vulnerability
- Confabulation
- Dysmaturity
- Auditory Processing Disorder




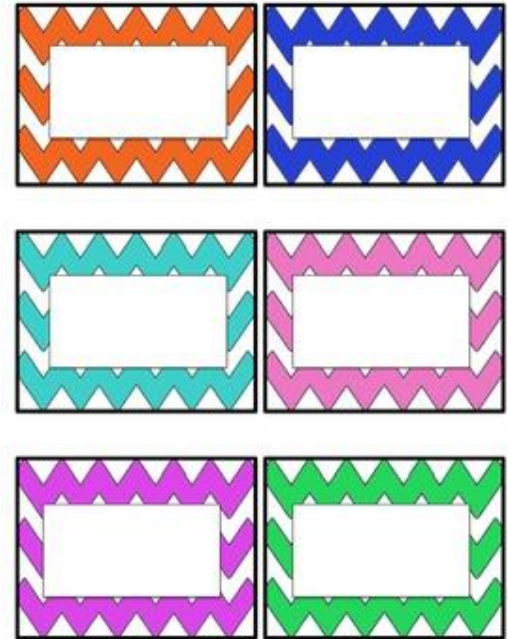
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Ownership

- *Ownership has to be taught and understood over time.*
- *A tool to aid in this is to label things with stickers or labels (colour coded).*
- *For example, everything that has a red sticker or a bird sticker is theirs. This will help in fending off frustrations.*
- *Use of concrete language.* 



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Impulsivity



Impulse
Control

Some with FASD act first,
then process the
information later.

By the time they realize
what they have done, it's
too late.



Behaviour³¹

- No concept of ownership
- Impulsivity
- **Planning, Connecting cause and effect and taking responsibility**
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Information Processing



**Later in Life: Escalating Sentences for
Non-Escalating Offenses**

Behaviour³¹

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- Impulsivity
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Social Interaction and Vulnerability

- Vulnerable to false confession:
 - Impulsive behaviour
 - Poor communication skills
 - Easily confused under pressure
- Eager to please
- Memory problems
- Verbal abilities are highly impaired
- Chronological age vs. Developmental age



For example...

- Package delivery
- Stealing

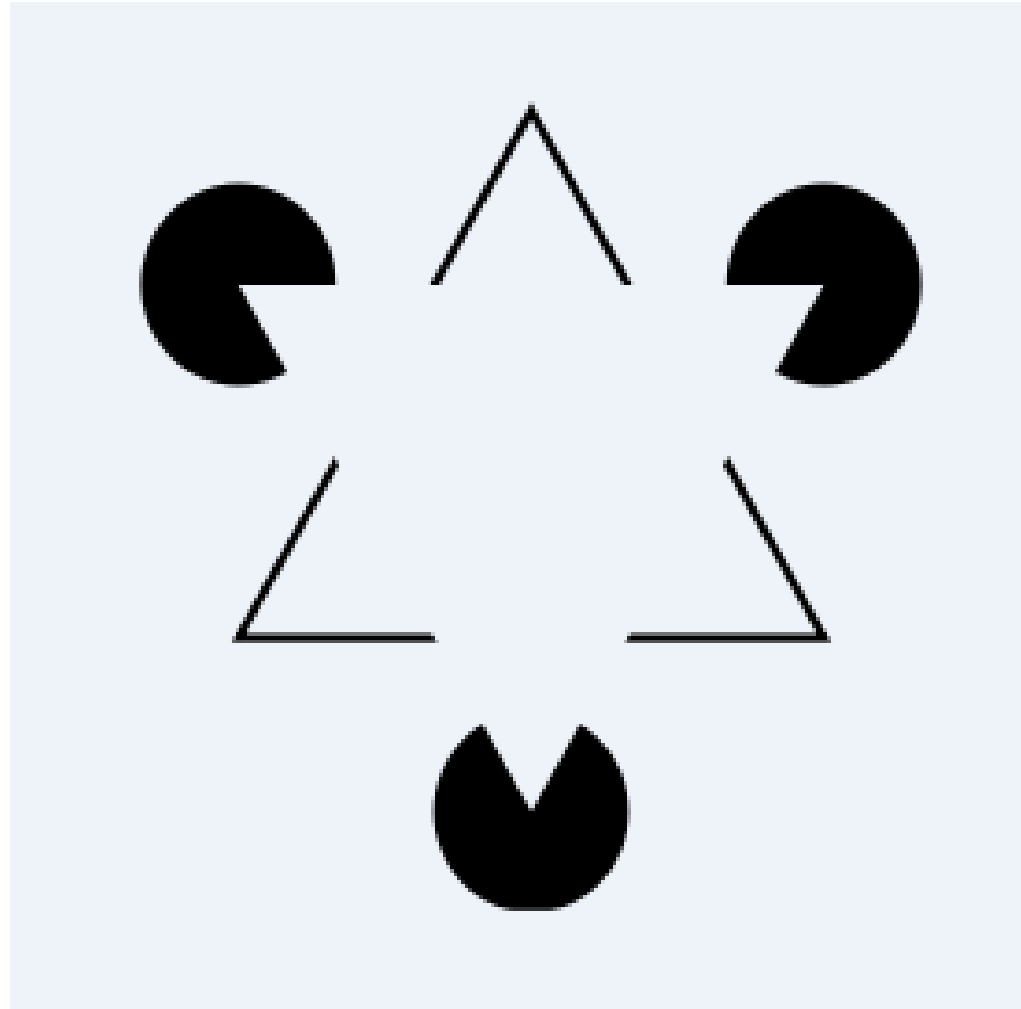
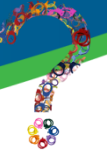


Behaviour³¹

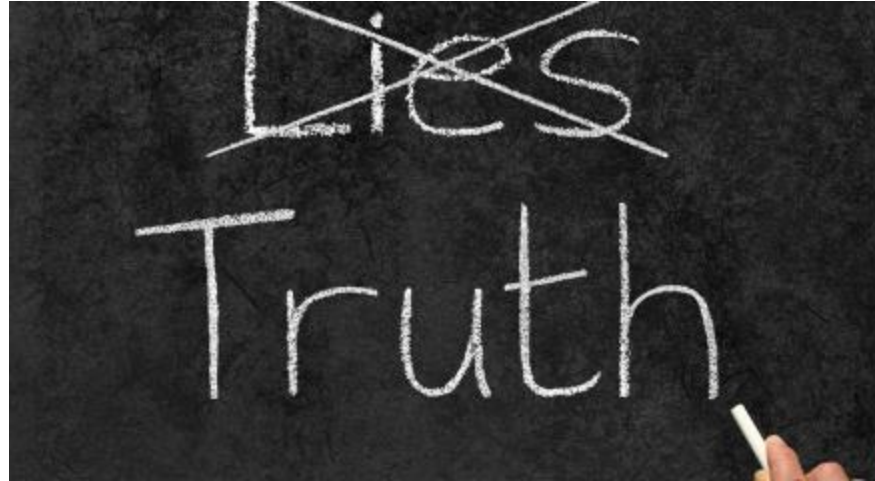
- No concept of ownership
- Impulsivity
- Planning, Connecting cause and effect and taking responsibility
- Social interaction and Vulnerability
- **Confabulation**
- Dysmaturity
- Auditory Processing Disorder



Confabulation



Confabulation



Confabulation is not lying because it is an unconscious act rather than a deliberate process. The individual who is confabulating believes the story is true.

Behaviour³¹

- No concept of ownership
- Impulsivity
- Planning, Connecting cause and effect and taking responsibility
- Social interaction and Vulnerability
- Confabulation
- **Dysmaturity**
- Auditory Processing Disorder



Chronological vs Developmental Age³²

Chronological vs. Developmental Age in FASD



Graphic created from information on the National Organization on Fetal Alcohol Syndrome website.
Adapted from Diane Malbin from FASCETS and the research of Streissguth, Clarren, and others.

www.oursacredbreath.com

Behaviour³¹

- No concept of ownership
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- Planning, Connecting cause and effect and taking responsibility
- Social interaction and Vulnerability
- Confabulation
- Dysmaturity
- **Auditory Processing Disorder**



Auditory Processing Disorder

I wish to **give you the following** warning:

You need not **say anything**.

You have nothing to **hope** from any **promise** or favour and nothing to **fear** from **any threat** whether or not **you say anything**.

Anything **you** do say **may be used** as evidence.

Do **you understand?**

Information Processing

- Judge would ask: “What were you thinking?”
- We should be asking: “What was going on in that brain?”
- Criminal Code of Canada assumes we have full brain function and use all your cognitive processes such as: memory, reasoning, learning

What do we need...

- We do NOT need more prisons or judges
- We DO need more probation officers
- We DO need more sentences that find strengths or give a purpose to that individual
- We DO need simplified probation instructions



Purpose of Jail...



Criminalizing a brain based disability.

- Criminal Code of Canada Section 718D states: “...To assist in rehabilitating offenders”
- Want prisoners to reflect and understand the consequences
- Public Safety purposes

Definition and Misconceptions

FASD is not a mental health diagnosis but rather a **brain-based invisible disability.**

**“I’m a 10 second
kid in a 1 second
world”**



What do we do? Paradigm Shift and Accomodate

A close-up photograph of a butterfly with vibrant blue wings and black borders, resting on a green leaf. The background is a soft-focus green. The text is overlaid on the butterfly's wings.

YOU CAN'T DISCIPLINE OUT A DISABILITY.

*BUT YOU CAN LEARN TO
UNDERSTAND ITS SYMPTOMS AND
THE BEHAVIORS THAT MANIFEST AS
A RESULT OF THEM*

Paradigm Shift

Math:



Driving:



Cooking:



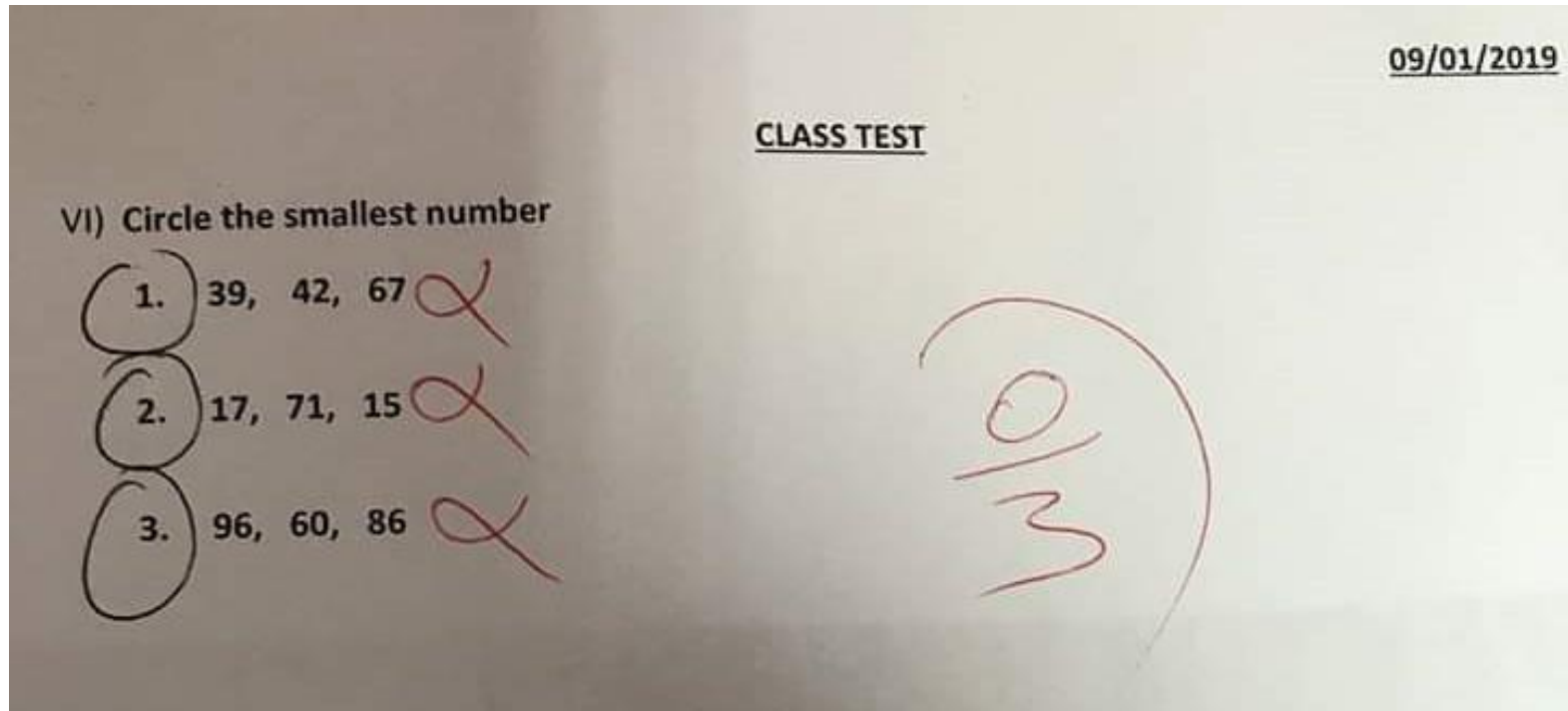
Behaviour:



Paradigm Shift

FROM	TO
Won't	Can't
Not listening or understanding	Wrong style of learning; Off Day or Exhausted
Stealing	Lacks understanding of ownership or boundaries
Disobedient	Gaps in the way information is processed
"Could remember if they applied themselves"	Recognizing there are memory issues
Can't sit still	Overstimulated; Overwhelmed

Strategy- Concrete vs. Abstract



Strategy- Concrete vs. Abstract



Do not drink



And drive your car

I didn't, I drove Charlie's car

SOME DISABILITIES LOOK LIKE THIS



SOME LOOK LIKE THIS



What's the Risk?

Suicide Risk in Adolescent with FASD₄₆

Serious Attempt-at least once in the past year

2.4 % of the
general
population

13 % of the
FASD
population

Males with
FASD are at
a higher
risk

Secondary Characteristic⁴²

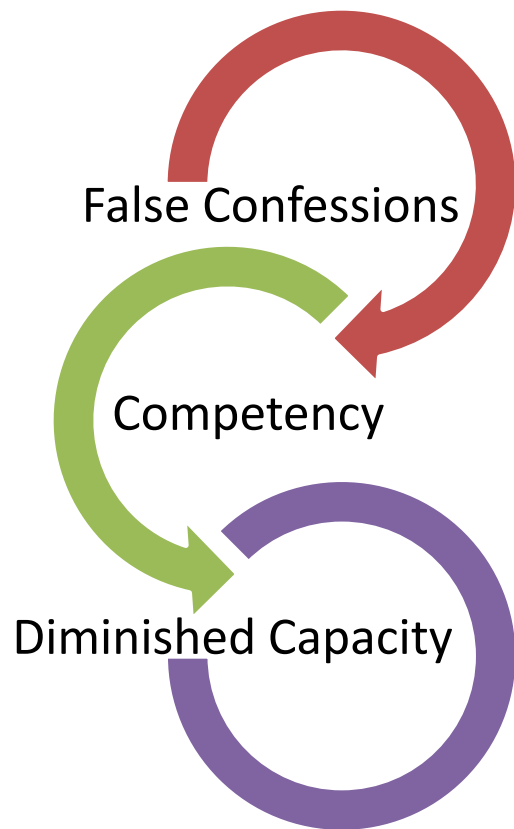
The Risk of not serving this population...

Secondary Characteristics	% of Adults with FASD have the Secondary Characteristics (n=473)
Mental Health Problems	94%
Disrupted School Experience	43%
Trouble with the Law	42%
Confinement	60% (40% incarcerated)
Inappropriate sexual behaviours	45%
Alcohol and Drug problems	30%
Problems with Employment	80%

Facts...^{45,46,47}

- The rate of FASD among the inmate population may be **28x higher** than in the general population.
- Youth with FASD are **19x more likely** to be confined in a young offender's facility than their non-affected peers.
- Estimated annual cost of **\$700 million** annually (youth and adults) in Canada

Facts...⁴⁸



12.8

Average Age Children
with FASD begin to
have trouble with the
law

I lied and said I was busy.
I was busy;
but not in a way most people
understand.

I was busy taking deeper breaths.
I was busy silencing irrational thoughts.
I was busy calming a racing heart.
I was busy telling myself I am okay.

Sometimes, this is my busy,
and I will not apologize for it.

b.oakman | Anxiety Doesn't Knock First

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Questions

Meera Sidhu

Phone: 905-855-2690

Ext: x2117

Email:

msidhu@erinoakkids.ca

