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Fetal Alcohol Spectrum Disorder

Dr Keri Alexander

Addiction Medicine Specialist

Acknowledgment of Country

I acknowledge the traditional owners who have lived and loved this country for the last 80K years.

I honor the Wurundjeri people of the Kulin Nation, on whose country I stand today. I pay my respects to the elders and ancestors who have been the safekeeps and caretakers of the oldest living culture on this planet.

This land always was, and always will be, Aboriginal land.

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What is Fetal Alcohol Spectrum Disorder (FASD)?

Fetal Alcohol Spectrum Disorder is a lifelong brain disability caused by exposure to alcohol before birth

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FASD under-diagnosed

Health professionals are often unaware of the diagnostic criteria, of how to diagnose FASD and where to refer for diagnosis or treatment.

Some are concerned about stigmatising families through making a FASD diagnosis [7]

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FASD under-diagnosed

Estimated prevalence of FASD in Australia is 3.64% [9] consistent with USA [4]

Failure to identify children at risk or to consider a diagnosis of FASD means that many individuals with the disorder are not identified and do not receive appropriate support and early intervention [5]

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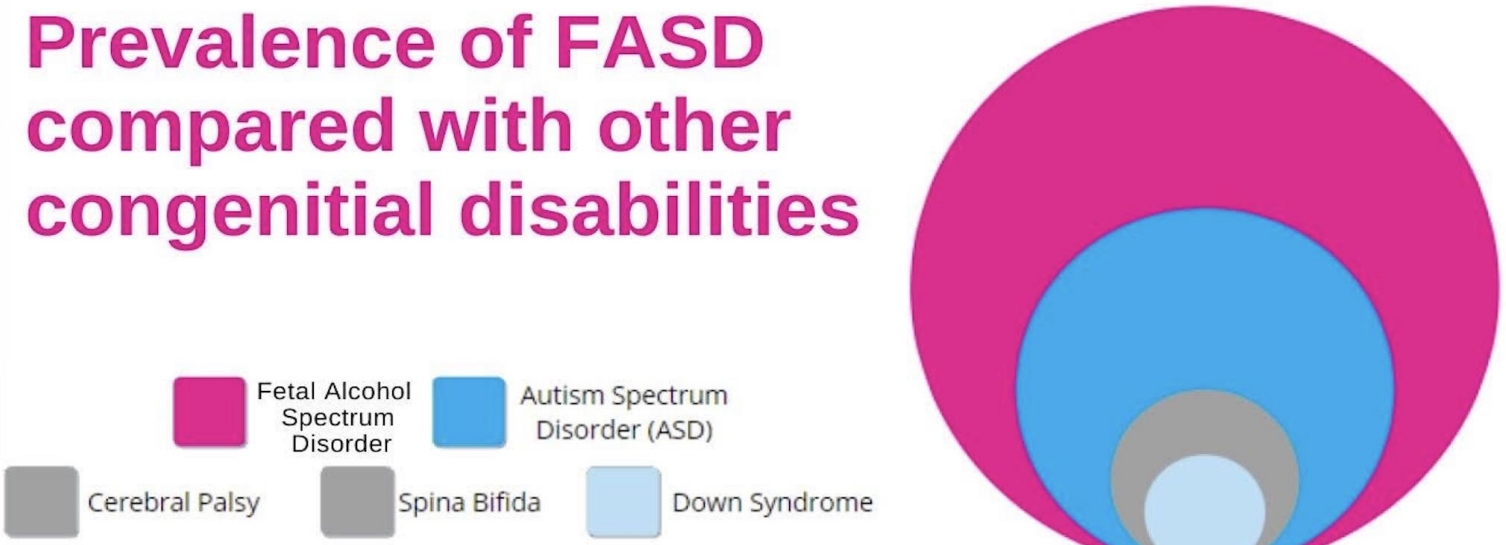
FASD under-diagnosed

Due to the perceived stigma about diagnosing FASD, there can be a reluctance by health professionals to engage in conversations regarding the possibility of fetal alcohol exposure [6]

This commonly leads to a misdiagnoses including: Attention Deficit Hyperactivity Disorder, Autism Spectrum Disorder, or other behavioural or learning problems [6]

Did you know?

Prevalence of FASD compared with other congenitial disabilities



Research released in 2025 estimates the prevalence of FASD (Fetal Alcohol Spectrum Disorder) in the general Australian population at 3.64%. Based on research from the United States and Canada, scientists believe that in Australia FASD is twice as common as Autism Spectrum Disorder, Spina Bifida, Cerebral Palsy and Down Syndrome combined.

9.Tsang T, Rosenblatt D, Parta I et al (2025). Estimating Prevalence of Fetal Alcohol Spectrum Disorder in Australia. Drug Alcohol Review. June 2025 https://doi-org.austin.idm.oclc.org/10.1111/dar.14082

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FASD is NOT the mother's fault

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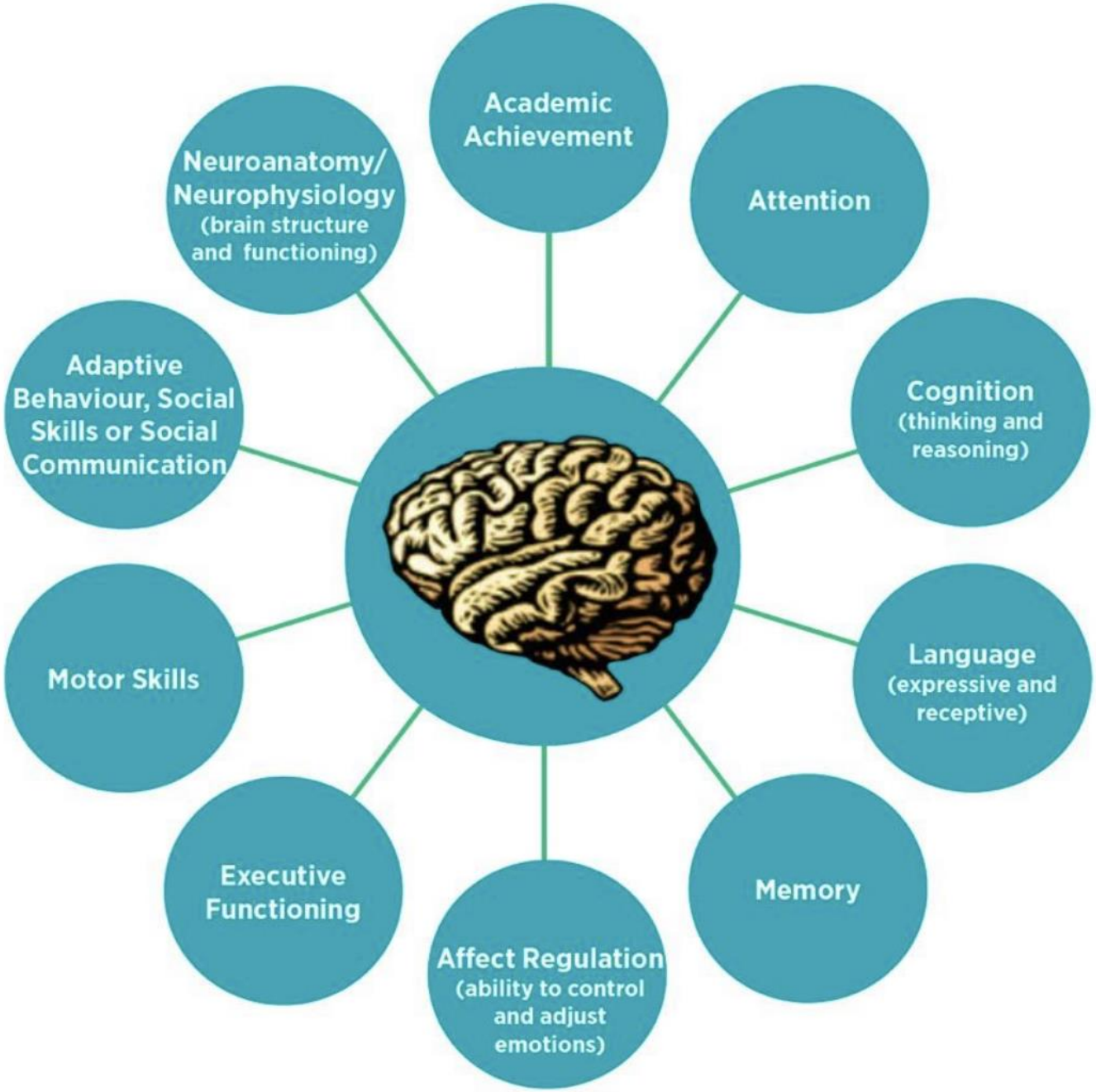
FASD diagnosis: severe impairment of brain function[3]

At least 3 of these 10 specified neurodevelopmental domains

Alcohol can cause widespread fetal brain injury and result in pervasive brain dysfunction

Patterns of neurodevelopmental impairment in individuals are complex and diverse

There is no typical pattern of impairment in FASD, most likely due to differences in the timing and level of alcohol exposure and genetic and environmental factors that influence maternal blood alcohol level and brain development


Academic Achievement
Attention
Cognition (thinking and reasoning)
Language (expressive and receptive)
Memory
Affect Regulation (ability to control and adjust emotions)
Executive Functioning
Motor Skills
Adaptive Behaviour, Social Skills or Social Communication
Neuroanatomy/ Neurophysiology (brain structure and functioning)

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APRIL 2025

Australian Guidelines for Assessment and Diagnosis of Fetal Alcohol Spectrum Disorder

FULL GUIDELINES

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FASD frequent co-occuring with:

- Mental health problems 90% (e.g. anxiety and depression)
- Hyperactivity and ADHD
- Sleep problems
- Intellectual Disability
- Conduct Disorder
- Autism Spectrum Disorder
- Specific learning disorders

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Why consider FASD?

Early intervention and support improves psychosocial and behavioural outcomes for those affected by FASD. At present, many people with FASD are not identified until relatively late in life, or not at all [1]

Newly diagnosed adolescent FASD patients (and their carers) benefit greatly from increased support to assist them with financial management, employability, interpersonal relationships or legal situations as a result of their neurocognitive disability [2]

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Diagnosis = understanding and improved quality of life

A lack of diagnosis and support can lead to challenges for people with FASD and their families, such as early school disengagement, drug and alcohol misuse, poor mental health, unemployment and engagement with the justice system (as victims and offenders). A diagnosis and management plan ensures the best opportunities for people with FASD.

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FASD diagnostic criteria:

All criteria A-E must be considered, and all relevant specifiers applied for diagnosis

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Criteria A:

A. Evidence of prenatal alcohol exposure (confirmed by point 1 **or** 2)

1. Prenatal alcohol exposure (PAE) above a low risk level at any time during gestation, including prior to pregnancy recognition. *See the additional information for further details to support assessment of PAE risk.* Confirmation of PAE may be obtained from any of the following sources: self-report of alcohol use in pregnancy, and/or collateral reports from individuals who directly observed the prenatal alcohol use, and/or information obtained from medical or other records.
2. In the absence of a confirmed history of PAE, following the exclusion of other causes, the presence of the three sentinel facial features (i.e., short palpebral fissures, thin upper lip, and smooth philtrum) may be considered sufficient to meet Criterion A.

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Criteria B:

Presence of pervasive neurodevelopmental impairments.

This is evidenced by clinically significant impairments in three or more neurodevelopmental domains (intellectual abilities, communication, motor skills, literacy and/or numeracy skills, memory, attention, executive functioning, emotional and/or behavioural regulation, adaptive/social functioning).

Clinically significant impairment is defined by points 1 **and** 2:

1. Reports indicative of clinically significant developmental and/or behavioural problems as described by the individual undergoing assessment and/or multiple informants across different settings; **and**
2. Direct evidence of clinically significant impairments. Practitioners should use standardised tests where appropriate, but not rely solely on these tests in assessing the significance of impairments and functional impacts. *See further information below on defining clinically significant impairments.*

Note: In infants and young children, in the absence of direct evidence of clinically significant impairments, following exclusion of other causes, microcephaly (≤ 3rd percentile) may be used as an indicator of neurodevelopmental impairment, meeting criterion B.

Criteria C:

The neurodevelopmental (brain) impairments result in functional impacts that necessitate significant supports across multiple areas of functioning, relative to an individual's developmental stage and cultural context.

Criteria D:

The onset of neurodevelopmental (brain) impairments are evident during the developmental period

Note: • Intellectual, behavioural, and functional capabilities emerge variably as individuals grow and mature, and some delays in development may represent age or developmentally appropriate diversity, rather than impairments.

• Neurodevelopmental impairments may not become apparent or fully manifest until the demands of life and context exceed developmental capabilities. Repeat assessments may therefore be required.

Criteria E:

An individual’s presentation is not better attributed to another condition or exposure. Diagnosis requires consideration of other conditions or exposures, which could better explain the person's presentation. However, some conditions and exposures can co-exist with FASD. This includes consideration of other neurodevelopmental risk factors such as, but not limited to.....

Criteria E (cont.):

- Predisposing/familial (e.g., family history of learning disorders, cognitive impairments, mental ill-health, intergenerational trauma).

- Genetic conditions that are known to be associated with neurodevelopmental impairment.

- Prenatal (e.g., exposure to other teratogens, including prescription medications [e.g., sodium valproate] and/or other drugs [e.g., nicotine, cannabis, amphetamines, opioids], pregnancy complications, congenital infections, premature birth, other environmental factors [e.g., nutritional deficiencies during pregnancy]).

- Postnatal (e.g., hypoxic ischaemic encephalopathy, adverse childhood, adolescent, or adult experiences, acquired or traumatic brain injury, central nervous system infections, or cranial malformation).

- Other neurological conditions.

- Current medications or substances.

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Australian Guidelines for Assessment and Diagnosis of Fetal Alcohol Spectrum Disorder (FASD) [3]

Two sub-categories:

1. FASD with three sentinel facial features

2. FASD with less than three sentinel facial features

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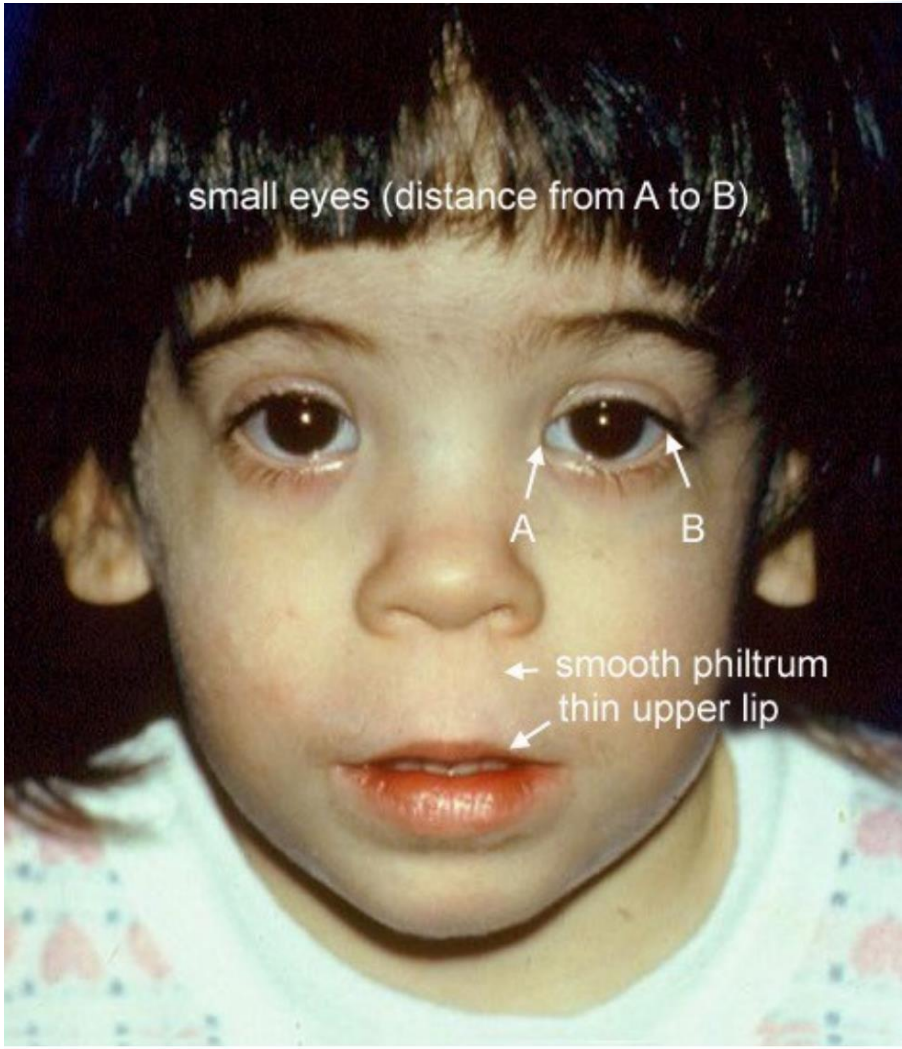
Three Sentinel Facial Features

1. Small palpebral fissures:

short horizontal length of the

eye opening



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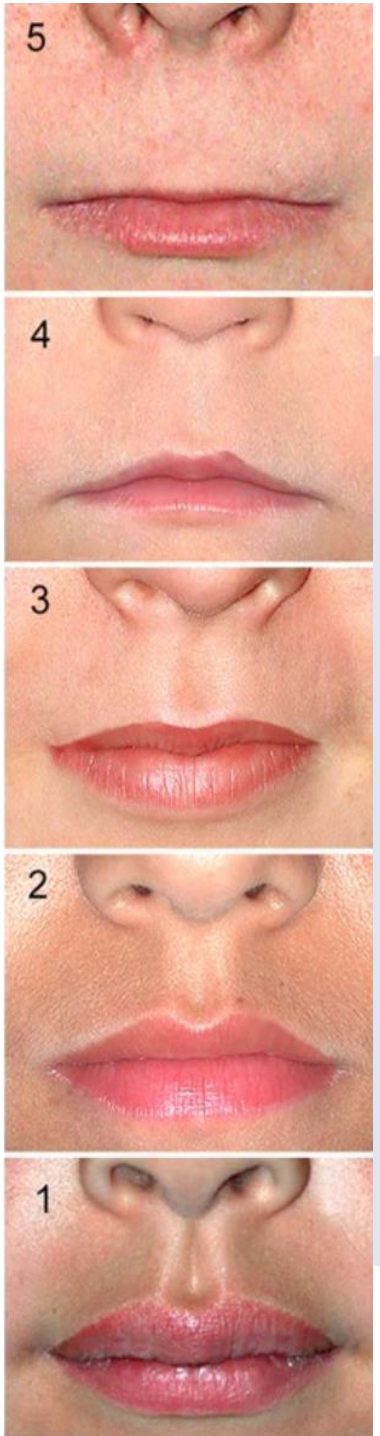
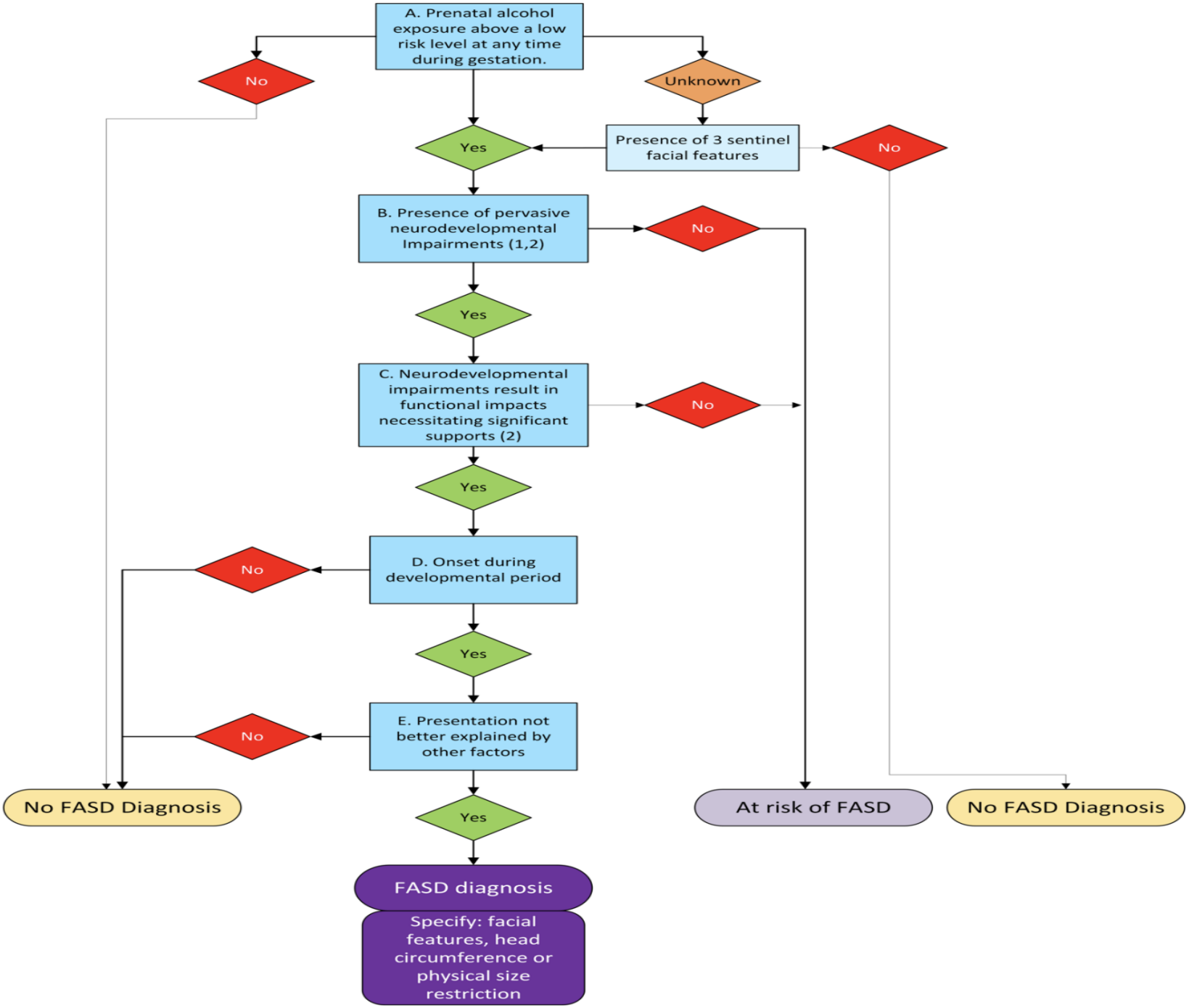
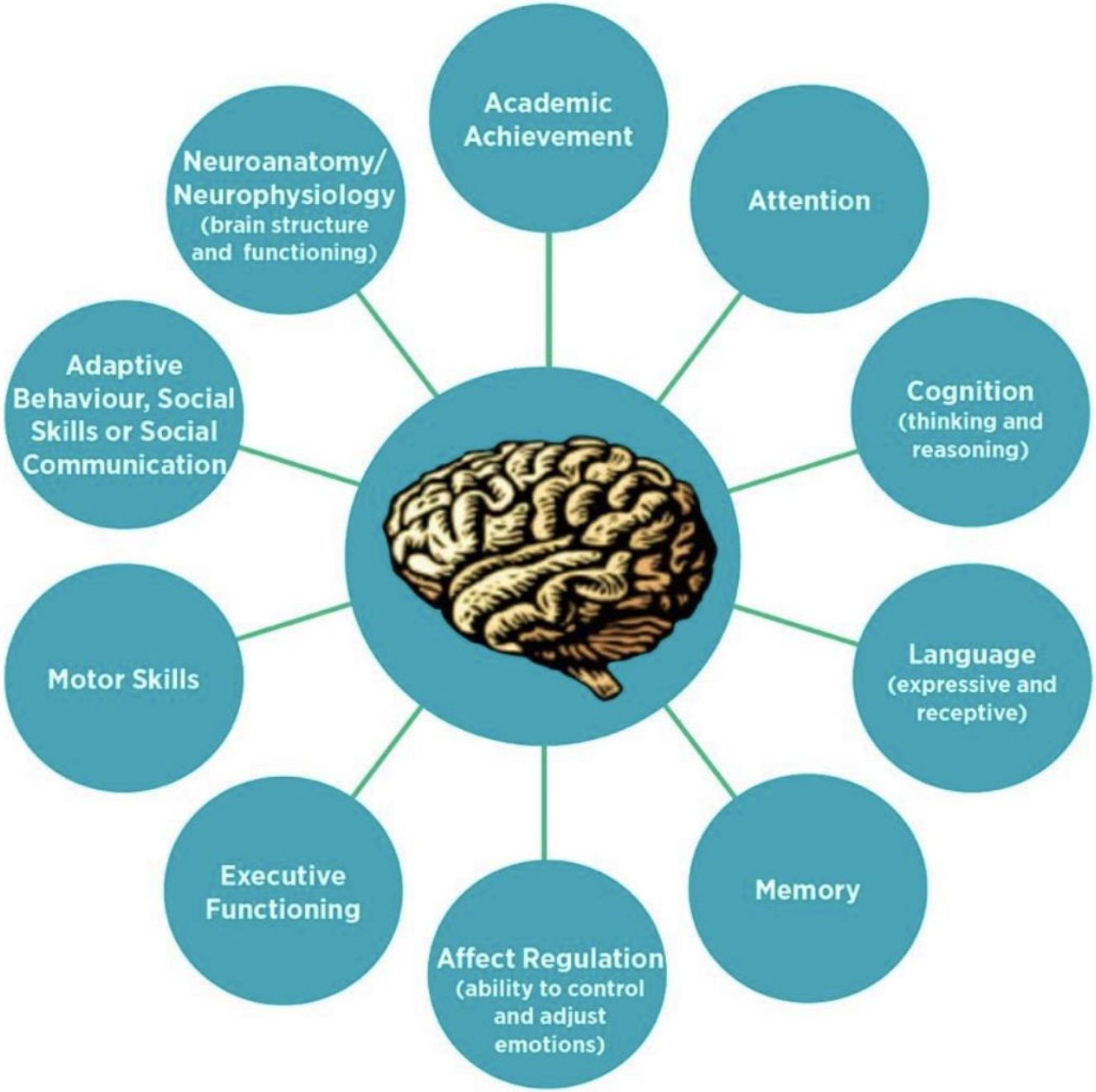
2. Smooth philtrum: diminished or absent ridges between the upper lip and nose

3. Thin upper lip: with small volume




A. Prenatal alcohol exposure above a low risk level at any time during gestation.
No
Unknown
Yes
Presence of 3 sentinel facial features
No
B. Presence of pervasive neurodevelopmental Impairments (1,2)
No
Yes
C. Neurodevelopmental impairments result in functional impacts necessitating significant supports (2)
No
Yes
D. Onset during developmental period
No
Yes
E. Presentation not better explained by other factors
No
Yes
No FASD Diagnosis
At risk of FASD
No FASD Diagnosis
FASD diagnosis
Specify: facial features, head circumference or physical size restriction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FASD & IQ

- FASD is a leading cause of Intellectual Disability
- … but most individuals with FASD present with average or even above average intelligence [3]

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Management

Effective interventions include family, educational and parental support, increased social-skills education for FASD children, and prescription medications to help manage attention deficit and other issues associated with FASD [8]

Early recognition and early therapy will minimise the adverse outcomes often seen [3]

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FASD should be part of the differential diagnosis for any individual presenting with significant developmental or behavioural problems, until prenatal alcohol exposure is excluded [3]

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Tips to access maternal alcohol history:

- Hospital records from birth
- Child Protection records

Hope

Diagnosis of FASD can help:

- **E.g. NDIS supports**
- **Education supports**
- **Navigating juvenile justice/ justice system**
- **Support for families and careers**
- **Reduces blame**
- **All people with FASD have wonderful strengths!!!**

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Resources

NOFASD Ph 1800 860 613

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References:

(1) Australian Guidelines Development Group. 2024. Australian clinical practice guidelines for the assessment and diagnosis of fetal alcohol spectrum disorder.

(2) National Organisation for Fetal Alcohol Spectrum Disorders. (2013). What is FASD? Available at: http://www.nofasd.org.au/resources/what-is-fasd-1

(3) Spohr, H-L, et al. (2007) Fetal Alcohol Spectrum Disorders in Young Adulthood. The Journal of Pediatrics. Volume 150 , Issue 2 , 175 - 179.e1. Available at: http://www.jpeds.com/article/S0022-3476(06)01124-3/fulltext)

(4) Bower C, Elliott EJ 2016, on behalf of the Steering Group. Report to the Australian Government Department of Health: "Australian Guide to the diagnosis of Fetal Alcohol Spectrum Disorder (FASD)"

(5) Burns, L., Breen, C., Bower, C. et al. (2013). Counting fetal alcohol spectrum disorder in Australia: the evidence and the challenges. Drug Alcohol Rev. 2013 Sep 32 (5):461-7. Doi: 10.1111/dar.12047. Epub 2013 Apr. 25. Review. PMID: 2361743

(6) AMA Position Statement (2016) Fetal Alcohol Spectrum Disorder (FASD). Available here National Organisation for Fetal Alcohol Spectrum Disorders. (2013). What is FASD?

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6. House Standing Committee on Social Policy and Legal Affairs. (2012). FASD: The Hidden Harm. Available at: http://www.aph.gov.au/Parliamentary_Business/Committees/House_of_representatives_Committees?url=spla/fasd/report.htm

7. House of Representatives Standing Committee on Social Policy and Legal Affairs. FASD: The Hidden Harm, Inquiry into the prevention, diagnosis and management of Fetal Alcohol Spectrum Disorders. Canberra: The Department of the House of Representatives, 2012.

8. Closing the Gap Clearinghouse (AIHW & AIFS). (2014). Fetal alcohol spectrum disorders: a review of interventions for prevention and management in Indigenous Communities. Produced by the Closing the Gap Clearinghouse. Resource sheet no. 36. Canberra: Australian Institute of Health and Welfare & Melbourne: Australian Institute of Family Studies. Available at: http://www.aihw.gov.au/WorkArea/DownloadAsset.aspx?id=60129550296

9.Tsang T, Rosenblatt D, Parta I et al (2025). Estimating Prevalence of Fetal Alcohol Spectrum Disorder in Australia. Drug Alcohol Review. June 2025 **https://doi-org.austin.idm.oclc.org/10.1111/dar.14082**