

## Preterm children and mental health

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### Overview

This fact sheet provides basic information about the links between preterm birth – also often referred to as premature birth – and mental health difficulties in children. It can be used as an accompaniment to the [Understanding child mental health and chronic physical conditions](#) e-learning course, which highlights the links between chronic illnesses/conditions in childhood and associated mental health difficulties.

This fact sheet covers general information about preterm birth, as well as details such as prevalence in Australia and the implications of the condition for children, including mental health impacts. Some content also pertains to adults.

Key points include:

- The birth of an infant is considered preterm when the baby is born alive before 37 weeks gestation.
- Approximately 8% of babies are born preterm in Australia each year.
- Babies born preterm are at risk of short- and long-term health and mental health complications, disability, and have a higher risk of mortality than full-term babies.
- Support from family and health professionals can help alleviate the challenges arising from preterm birth, and improve quality of life and mental health and wellbeing for preterm children and their families.



### What is preterm birth?

A preterm birth is when a baby is born alive before 37 weeks gestation (World Health Organization [WHO], 2018). The median gestational age in Australia for liveborn babies is 39 weeks (Australian Institute of Health and Welfare [AIHW], 2018). Preterm birth is divided into subcategories of extremely preterm (less than 28 weeks), very preterm (28–32 weeks) and moderate–late preterm (32–37 weeks) (WHO, 2018).

### What is the prevalence of preterm birth in Australia?

Preterm birth is much more likely to occur in multiple births, with 67% of twins and 97% of triplets, quadruplets and other multiples being born preterm, compared to 7% of single births (AIHW, 2018). Most babies born preterm have low birthweight, weighing less than 2.5kg, compared to the average birthweight in Australia of 3.3kgs (AIHW, 2018).

### Preterm birth in Australia

In Australia in 2018, 8.7% of babies were born before 37 weeks gestation, with the majority of these births (82%) occurring between 32–36 weeks gestation. The median gestational age of preterm births was 35 weeks (AIHW, 2018).

## What are the implications of preterm birth for the child?

The risk of mortality and health and developmental problems is higher among infants born preterm than infants born at term (Behrman & Butler, 2007). Gestational age and birthweight are the most significant predictors of perinatal death in Australia (AIHW, 2018).

Preterm babies may have immediate health problems, and are more likely to require an extended hospital stay in a special care unit or neonatal intensive care unit. In 2018, 80% of preterm babies required specialised care compared to 13% of babies delivered at term (AIHW, 2018). Preterm babies may experience breathing, heart, brain, temperature control, gastrointestinal, blood, metabolism and immune system problems (Behrman & Butler, 2007).

Children born preterm are at risk of developmental delays – even for those born moderately pre-term (Pierrat et al., 2017). The risk of developmental delays or disabilities increases with decreasing gestational age at birth (Bhutta, Cleves, Casey, Cradoc, & Anand, 2002; Moster, Lie, & Markestad, 2008). Some babies born preterm can experience language delays, motor impairments, cognitive impairment, and atypical social and emotional development (Behrman & Butler, 2007). Preterm birth may lead to other complications such as cerebral palsy, learning problems, dental problems, vision problems and hearing problems (Behrman & Butler, 2007).

Children born preterm are more likely to have special educational needs, and are less likely to complete secondary and post-secondary education than children born at term (Chan, Leong, Malouf, & Quigley, 2015). Preterm children are also more likely to be autistic, or have attention deficit disorder, conduct disorder or attention deficit hyperactivity disorder than children born full-term (Johnson & Marlow, 2011; Singh, Kenney, Ghandour, Kogan, & Lu, 2013). It has also been found that children born extremely preterm were 4.3 times more likely to experience attention deficit hyperactivity disorder than their classmates who were not born extremely preterm (Johnson, Hollis, Kochhar, & Wolke, 2010).



## What are the mental health impacts of preterm birth?

Children born preterm are more likely than full-term children to experience mental health problems such as anxiety and depression (Singh et al., 2013). The prevalence of anxiety is significantly higher among children born preterm than children born full-term (Johnson et al., 2010; Singh et al., 2013). Children born extremely preterm are four times more likely to experience anxiety than their classmates (Johnson et al., 2010).

The effects of neurodevelopmental conditions on emotional/behavioural problems among children is significant. Children born preterm who have a neurodevelopmental condition are more likely to experience emotional/behavioural problems than children without a neurodevelopmental condition (Singh et al., 2013). There are many factors that influence neurodevelopmental outcomes for children born preterm, including:

- the severity of infant illness
- the extent of any brain injury
- issues with nutrition and growth due to illness; and
- the use of certain medications (Behrman & Butler, 2007).

Evidence suggests that, as in the general population, other factors can also influence the risk of mental health difficulties in children born preterm, including socioeconomic circumstances, family structure and race/ethnicity (Singh et al., 2013). There is also evidence that children who are born preterm are more at risk of being bullied than full-term children. Bullying is a predictor for emotional problems in adolescents who were born preterm (Wolke, Baumann, Strauss, Johnson, & Marlow, 2015) and is widely understood to have a negative impact on the mental health and wellbeing of children (Headspace, n.d.; Robinson, 2020).

## What impact does preterm birth have on families?

Preterm birth and the process of hospitalisation can be a very stressful and fearful experience for parents. This can be related to parental separation from the infant, fear about the child's health, grieving the loss of expected early experiences with a healthy newborn, and feeding problems for mothers (Al Maghaireh, Abdullah, Chan, Piaw, & Al Kawafha, 2016). Experiences of stress can impact on the relationship between parents and infant and early attachment (Al Maghaireh et al., 2016).

Preterm birth can also have an impact on relationships between parents (Saigal & Doyle, 2008). The experience of admission to a neonatal intensive care unit may alter parenting roles and responsibilities, and impact on the psychological and emotional health of parents (Al Maghaireh et al., 2016).

Parents of preterm babies may experience elevated levels of psychological distress (Huhtala et al., 2011), depression (Vigod, Villegas, Dennis, & Ross, 2010), and post-traumatic symptoms in comparison to parents of full-term babies (Kersting et al., 2004). Parents are most at risk of depressive symptoms shortly after the birth, but symptoms can continue throughout the first year of the newborn's life (Vigod et al., 2010). Experiences of maternal depression after a preterm birth can have an impact on interactions between mother and infant and attachment, and is associated with developmental delays and social interaction problems for children (Huhtala et al., 2011; Vigod et al., 2010).

## Conclusion

Preterm birth can have significant implications for children's overall development and wellbeing, including ongoing mental health concerns. Early identification of these concerns and access to professional services, including allied health practitioners and social workers, offers the potential to alleviate the challenges for children and their families. Further information about the impact of chronic conditions on mental health can be found within the [Understanding child mental health and chronic physical conditions](#) e-learning course.

## Where can I go for further information on preterm birth?

[Parent Infant Research Institute \(PIRI\) - Austin Hospital](#)

Information about preterm birth and programs in Victoria for depression and prematurity.

[Miracle Babies Foundation](#)

Information about preterm birth, supporting infants born preterm through to adulthood, and support services for families affected by preterm birth.

NurtureLine 1300 622 243 is a 24-hour support helpline catering to families with a threatened pregnancy or a baby in neonatal intensive care unit or special care unit.

## What are some other supports for children and families?

[Beyond Blue](#)

Beyond Blue provides information and support to help everyone in Australia to achieve their best possible mental health. The service supports those experiencing depression, anxiety or going through a difficult time. The phone service 1300 224 636 operates 24/7, while the website offers online chats, email support and online forums.

[GP and psychologist](#)

Families can consult with their local health professional to get access to specialised support.

[Healthdirect Australia](#)

Healthdirect is a national, government-owned, not-for-profit organisation supporting Australians in managing their own health and wellbeing through a range of virtual health services. Health advice is available on 1800 022 222.

[Kids Helpline](#)

Kids Helpline is a free, private and confidential 24/7 phone and online counselling service for children aged 5–12 years and young adults aged 18–25. Qualified counsellors are available via phone on 1800 551 800 or via WebChat or email.

[Lifeline](#)

Lifeline is a national charity providing all Australians experiencing emotional distress with access to 24-hour crisis support and suicide prevention services. Available via phone on 13 11 14.

[Parentline](#)

Parentline is a confidential telephone service providing professional counselling and support in Queensland and the Northern Territory. Available via phone on 1300 301 300.

[Raising Children Network](#)

Raising Children Network is a comprehensive and trusted online resource for parenting information. A website includes information on children's health and wellbeing across the ages. It includes videos, fact sheets and downloadable toolkits on child development, behavioural problems and health issues.

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