health promotion agency
TE HIRINGA HAUORA

Evidence Summary

Alcohol and Pregnancy

During pregnancy, the baby is vulnerable to exposure to harmful substances including alcohol. Drinking alcohol during pregnancy increases the risk of harm to both mother and baby. These risks include pregnancy complications such as miscarriage, stillbirth, preterm birth, growth restriction (including low birth weight and small for gestational age), and developmental deficits. Fetal Alcohol Spectrum Disorder (FASD) is the term used to describe the range of effects that can occur on the brain and body of babies exposed to alcohol in the womb.

How does alcohol affect the fetus and mother?

Alcohol passes from the mother through the placenta to the fetus at the same concentration as in the mother's blood. But the fetus is unable to process alcohol as efficiently as the mother and the alcohol stays in the fetus' system for longer, having a sustained and prolonged effect[1].

Alcohol interferes with fetal development through direct cell damage or by interfering with cell development[2]. Exposure to alcohol may cause major congenital abnormalities or functional defects to organs. This includes changes in brain development[3], cognitive deficits, and behavioural deficits that can have life-long effects[4-7].

Fetal Alcohol Spectrum Disorder

"Fetal Alcohol Spectrum Disorder (FASD) is a diagnostic term used to describe impacts on the brain and body of individuals prenatally exposed to alcohol. FASD is a lifelong disability. Individuals with FASD will experience some degree of challenges in their daily living, and need support with motor skills, physical health, learning, memory, attention, communication, emotional regulation, and social skills to reach their full potential. Each individual with FASD is unique and has areas of both strengths and challenges" [8].

There is no data on how common FASD is in New Zealand. However, based on international studies, the Ministry of Health estimates that three in every 100 births may be affected by alcohol - an estimated 1,800 each year[9].

Alcohol exposure can cause low birth weight[10 11], which in turn is associated with poorer long term health outcomes. There is also an increased risk to the mother when drinking during pregnancy including miscarriage, still-birth or preterm birth and their associated complications[10 12 13].

What is the level of alcohol use during pregnancy in New Zealand?

One in five women report drinking alcohol during their pregnancy[14], while 13% continue to drink after the first trimester[15].

Drinking more than four drinks per week in the first trimester is more common in younger women (under 19), Māori women, women who smoke, women with fewer education qualifications, and women whose pregnancy is unplanned[16].

However, drinking at lower levels throughout pregnancy is more common in older women (over 40), New Zealand European women, and women from high income households (over $150,000 per year)[16]. These findings highlight the importance of asking all women about their alcohol use during pregnancy.

Are there safe levels and times for consuming alcohol when pregnant?

The Ministry of Health, the Health Promotion Agency /Te Hiringa Hauora, the Royal New Zealand College of General Practitioners, the New Zealand College of Midwives and other health sector agencies support the following advice.

Stop drinking alcohol if you could be pregnant, are pregnant or are trying to get pregnant. There is no known safe level of alcohol consumption during pregnancy.

A safe level of alcohol consumption during pregnancy has not been established

Regular heavy alcohol use by mothers – defined as more than ten drinks per week – increases the risk of harm[10 17-19].

However the association between low to moderate alcohol use (average one drink per day or less) or occasional binge episodes (five or more drinks on a single occasion) and harm is less clear. Some studies have shown increased risk of miscarriage and low birth weight at low levels of alcohol exposure[20-22], and increased behavioural problems and attention deficits in children exposed to binge drinking[4 23]. Other studies, though, have found no deficits in children exposed to low level alcohol exposure or occasional binge drinking in pregnancy[17 24-28].

The relationship between maternal drinking and poor child outcomes is complicated by other factors, such as diet, genetics, maternal stress, tobacco smoking, use of marijuana and other substances, as well as the postnatal environment[29 30]. So not all children exposed to alcohol during pregnancy will be affected or affected to the same degree.

Therefore, given the above, it is not possible to establish a threshold below which alcohol consumption is safe and will not interfere with fetal development[31].

There is no known safe time to drink alcohol during pregnancy

Because the brain and central nervous system develop throughout pregnancy, there is no period of time when alcohol consumption is safe.

There are, however, time periods where the risk is greater than other times. The first eight weeks of pregnancy is the most vulnerable time for the fetus and a critical time in the development of organs that are especially vulnerable to alcohol exposure, including eyes, heart, ears, and the central nervous system[2 7 32].

Unplanned pregnancies pose a particular risk, as alcohol exposure may occur before the woman knows she is pregnant.

What is the role of health professionals in reducing alcohol consumption in pregnancy?

Health professionals can help reduce drinking in pregnancy by asking pregnant women and women trying to get pregnant about their alcohol use at every visit. However, studies suggest that most health professionals do not ask all pregnant women about their alcohol use or provide advice about the effects of alcohol on fetal development[33-35].

Screening for alcohol use can improve health outcomes for both mother and child by:

- supporting mothers to reduce or stop drinking
- identifying at-risk pregnancies earlier which can facilitate diagnosis and support for children prenatally exposed to alcohol[31]
- identifying at-risk drinking patterns in non-pregnant women to help to reduce the risk of alcohol exposure for unplanned pregnancies[36]. Drinking behaviour prior to pregnancy[37] is a strong predictor of alcohol consumption during pregnancy[16 38].

Women want and expect to receive advice from health professionals about alcohol. Health professionals are seen as a trusted source, having expert knowledge, and being well-placed to support women in changing their drinking behaviour[39]. Pregnancy is a key opportunity for health professionals to support women to make long term changes to improve their health during and after pregnancy.

Want more information and resources?

Alcohol Drug Helpline
(0800 787 797, **alcoholdrughelp.org.nz** or free text 8681).

Alcohol and pregnancy information and resources, including information about the Health Promotion Agency's 'Don't know? Don't drink.' campaign, available from **alcoholpregnancy.org.nz**

Alcohol and Pregnancy – A practical guide for health professionals (Ministry of Health, 2010), available from **https://www.health.govt.nz/system/files/documents/publications/alcohol-pregnancy-practical-guide-health-professionals.pdf**

Implementing the ABC Alcohol Approach in Primary Care (Royal New Zealand College of General Practitioners and the Health Promotion Agency, 2012), available from **https://www.alcohol.org.nz/sites/default/files/documents/2012%20Implementing%20the%20ABC%20Alcohol%20approach%20in%20Primary%20Care%20CEM.pdf**

Information about FASD and the Fetal Alcohol Network NZ available from **fan.org.nz**

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