Drinking wine during pregnancy and breast feeding

Introduction

Not drinking wine is the safest option for women who are pregnant or planning a pregnancy, according to the National Health and Medical Research Council's Australian (NHMRC) guidelines to reduce health risks from drinking alcohol (March 2009).

The majority of the literature still does not support the 'no threshold theory', that any amount of alcohol from wine will have a harmful effect on the foetus (Henderson et al. 2007).

But, a ‘no-effect’ level for you to avoid harming your unborn baby has not been established nationally or internationally.

And, there is convincing evidence that links heavy maternal wine drinking, regularly or irregularly, with adverse effects on the foetus (O’Leary 2004, Abel et al. 2009).

Pregnant women should never become intoxicated. The alcohol contained in wine readily crosses from the maternal blood stream via the placental barrier into the blood stream of the foetus where it circulates until it is broken down or metabolised by the foetus’s albeit undeveloped liver.

The most severe adverse effect from chronic or intermittent heavy maternal wine drinking is foetal alcohol syndrome (FAS).

Other potential but not proven adverse effects include spontaneous abortion (Kesmodel et al. 2002, Henriksen et al. 2004, Maconochie et al. 2007), low birth weight (Covington et al. 2002, O’Callaghan et al. 2003, Mariscal et al. 2005), and attention and learning difficulties (D’Onofrio et al. 2007, O’Callaghan et al. 2007). Indeed, the vulnerability of the developing central nervous system of the foetus to the alcohol contained in wine has been shown in experimental studies (Guerri et al. 1998, 2002).

Did you know?

- 48-58% of Australian women drink an alcoholic beverage such as wine while pregnant.
- Of the women who drink, only 1.0-4.3% drink heavy amounts of an alcoholic beverage regularly, that is five or more standard drinks on a typical occasion.
  Of the women who drink, 95.7 – 99% drink lightly and irregularly, at most, one or two standard drinks per week (Colvin et al. 2007, Giglia and Binns 2007, Wallace et al. 2007)
Foetal alcohol spectrum disorder (FASD) and foetal alcohol syndrome (FAS)

A review of the literature, both recent and past, reveals that FAS is only observed in babies born to women who drink heavy amounts of an alcoholic beverage regularly and continually during pregnancy, approximately five to six standard drinks per day (Elliott et al. 2008). The critical period of exposure to the alcohol contained in wine is the first trimester.

However, the diagnosis of FAS (and that of FASD) is confounded by other factors often common to these women, such as the nutritional status of the mother, her ingestion of drugs including caffeine and nicotine as well as illicit drugs, her age, and her educational, ethnicity, genetic, marital, parity and socio-economic status (Aase 1981, Sokol et al. 1986, Michaelis and Michaelis 1994, Abel and Hannigan 1995, Jacobson et al. 1996, Mattson et al. 2002, Elliott et al. 2008).

Binge-like drinking patterns will expose a foetus to high blood alcohol concentrations over relatively short periods of time, and will be particularly harmful, even if the overall amount of wine consumed is less than that of more continuous drinking patterns (Maier and West 2001).

FAS is characterised by three diagnostic criteria—reduced growth, craniofacial and neurological abnormalities, and certain cardiac, central nervous system, limb and urogenital malformations. FAS has not been observed to occur in babies born to women who drink light amounts of wine during pregnancy, approximately one standard drink per day (Henderson et al. 2007).

Did you know?

- Foetal alcohol spectrum disorder describes a full range or spectrum of adverse effects or disabilities that may result from exposure of the foetus to the alcohol contained in wine in pregnancy, such as growth deficiencies, birth defects and neuro-developmental problems (Abel 1998, Sokol et al. 2003).
- The most severe adverse effect is called foetal alcohol syndrome (FAS) (Lemoine et al. 1968, Jones et al. 1973).
- In Australia, the incidence of FAS is extremely small, approximately 0.014–0.02/1,000 live births and the incidence of low birth weight is approximately 4/1,000 live births. These statistics have remained relatively stable over the past decade.
- The incidence of FAS is higher, however, in children born to indigenous Australians, approximately 2.76/1,000 live births (Bower et al. 2000, Harris and Bucens 2003, Elliott et al. 2004, 2006).

Alcohol and breast feeding

For women who are breast feeding, not drinking wine is also considered to be the safest option, especially during the first month after the baby has been born until breast feeding is well established.

The alcohol contained in wine enters breast milk by passive diffusion and within 30 to 60 minutes of ingestion will reflect the maternal blood alcohol concentration.

After the first month, if you chose to drink wine while breast feeding, there are some steps you can take to avoid a high blood and breast milk alcohol concentration - time consumption with a meal; drink no more than two standard drinks per day; and aim to avoid breast feeding for approximately two hours after drinking.
Additional information

For additional information on drinking wine during pregnancy and breast feeding please refer to the NHMRC’s Australian guidelines to reduce health risks from drinking alcohol (March 2009) on http://www.nhmrc.gov.au/publications/synopses/ds10syn.htm, and from the Australian Breastfeeding Association on http://www.breastfeeding.asn.au

References

REFERENCES


Further information

This information sheet on drinking wine during pregnancy and breast feeding forms part of an Information Series on wine and health. Visit www.awri.com.au/ to access the complete series.

This information sheet has been prepared by The Australian Wine Research Institute:

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