

COVER SHEET.



2nd February.  
2008

TO THE CHAIRMAN, F SANZ

SUBMISSION TOPIC RE FORM A576.

FROM PADD.

\* CONTENT OF THIS ADDITIONAL SUBMISSION

- Our list of answers to the initial questions for public comment. (see under)

to supplement PART A. + PART B of the PADD Submission, already sent + acknowledged.

Date of the first part of our submission

Jan 22 - 2008.

Dear Sir,

Please find the additional and final part of the PADD. submission, being our responses to the 15 Initial assessment questions for public comment, as enclosed herewith. I trust you will find them satisfactory and hoping that the decision made may be favourable for all concerned.

We understand of course, that as alcohol impinges on every Australian man, woman and child, both born and unborn, we therefore in our preliminary documents, attempted to illustrate the similar global problems overseas countries are also suffering with alcohol.

Accordingly we have also enclosed the list of additional topic headings which we have processed + hope there may be some of our answers which are relevant

Yours sincerely

Donald Cameron

STATE DIRECTOR FOR VIC. PADD

# Alcohol Risks To Health

State Director for Vic.

TOPIC RE  
FORM A576 from  
People against Drink Driving  
Deameren

SUBMISSION NO. A576

TO THE CHAIRMAN, F.S.A.N.Z.

P.O. BOX. 7186, CANBERRA - 2610

SENDER P.A.D.D. TO ADD TO OUR  
PREVIOUS SUBMISSIONS - PART A + PART 3

Initial Assessment questions for public comment

Attachment 1

(which you have  
already received  
and acknowledged)

1. What other strategies or programs are there in Australia or New Zealand (initiated by industry, public health, government, and consumer groups) to advise women of childbearing age of the risk of consuming alcohol when pregnant or if planning a pregnancy? from 11-12 years.
2. What information (from industry, public health, government and consumer groups) is available to women planning a pregnancy or pregnant women, about the risk of consuming alcohol?
3. What published and unpublished information is available that may provide answers to the risk assessment questions regarding FASD that will be addressed at Draft Assessment?
4. What other data are available regarding alcohol consumption by women of childbearing age and during pregnancy in Australia and New Zealand? ~~is there?~~
5. Are there any other data available on the incidence of FAS/FASD in Australia or New Zealand? covered elsewhere
6. Are there any other data available relating to the level of awareness amongst women of childbearing age of the risk of consuming alcohol when planning to become pregnant and during pregnancy in Australia and New Zealand? }
7. Do you think a health advisory statement about the risk of consuming alcohol when planning to become pregnant and during pregnancy on all alcoholic beverage containers should be required? Why/why not?
8. What further evidence is available about the use and/or effectiveness of a health advisory statement on alcoholic beverage containers regarding the risk of consuming alcohol when planning to become pregnant and during pregnancy?
9. What wording for a statement about the risk of consuming alcohol when planning to become pregnant and during pregnancy would be appropriate on an alcoholic beverage container to raise awareness in pregnant women and women planning to become pregnant?
10. What further evidence is relevant to the wording of such a statement, such as its likely effectiveness or appeal to women of childbearing age and/or understanding of the statement by women of childbearing age? (also included)
11. What are the advantages and disadvantages of a written statement compared with a pictorial image for conveying the risks of consuming alcohol when planning a pregnancy and during pregnancy? + Nos 13  
" 14  
+ 15.
12. What percentage of alcohol by volume should be used to determine which alcoholic beverages are to carry an advisory statement, if required?

PLEASE NOTE - HERewith IN THIS SUBMISSION PLEASE  
FIND OUR ANSWERS, EXCEPTING Q'S NO. 5 + 6 df  
FOR PADD.

Your supplementary questions which we noted.

FSANZ

- EVIDENCE ON LOW MATERNAL ALCOHOL CONSUMPTION ON THE DEVELOPING FOETUS.
- INCIDENCE OF FASD
- DRINKING PATTERNS OF WOMEN + THOSE PREGNANT.
- THEIR KNOW-LEDGE OF DANGERS INVOLVED
- AVAILABLE DATA ON IMPACT OF ADVISORY LABELS ON CONSUMER AWARENESS OF ALCOHOL DRINKING RISKS DURING PREGNANCY
- AIM AS PART OF A WIDER HEALTH STRATEGY TO ALERT COMMUNITY AS A WHOLE ON RISKS OF CONSUMING ALCOHOL.
- IF SUCCESSFUL, SUPPLIERS ARE TO PUT WARNING LABELS WARNING CONSUMERS ON ALCOHOL RISKS BEFORE + DURING PREG.

drinking patterns of women + danger awareness  
please see evidence on pages numbered 9 & 10  
please see suggestions in our sub-missions delivered previously

PREVIOUS LABEL APPLICATION A359 <sup>FOR</sup> WAS DIFFERENT LABEL  
This product contains alcohol. Alcohol is a dangerous drug. This application is re maternal alcohol consumption only. Application A 306, which requested a warning about possible birth defects from alcohol during pregnancy was withdrawn prior to assessment.

Option 1

Option 2

Maintain status quo. Amend code to require a warning label.

(See Section 8 of this report.

FSANZ is also anxious to get answers on its attached list of answers requested

- Responses should provide costs + benefits of proposed change
- Supply reference or source for any claims made

MARK ENTRIES "SUBMISSION" - QUOTE PROJECT + NUMBER  
send entries to Canberra or N.Z.

DEADLINE 6 PM. CANB. 6 FEB 2008

HARD COPY ACCEPTED BUT ELECTRONIC SUBS. PREFERRED

What is the strength of evidence that less than 2 drinks causes foetal devel. effects?

is there a threshold of consumption showing when foetal harm is likely to occur?

NOTE

SEE PAGES 31 + 32 WITH LIST OF RELEVANT QUESTIONS.  
FOR ANSWER

Deamer  
for PADD

RECEIVED  
10 FEB 2008  
12:00 PM  
10 FEB 2008  
12:00 PM

# Alcohol Risks To Health

***\*For pregnant women***

4. What other data are available regarding alcohol consumption by women of childbearing age and during pregnancy in Australia and New Zealand? • SEE BELOW Q4

# PREGNANCY & ALCOHOL —A DANGEROUS MIX

## • THAT ONE-NIGHT DRINKING BINGE COULD CAUSE PERMANENT HARM TO YOUR UNBORN CHILD

WHEN a pregnant woman drinks alcohol she is forcing her unborn child to drink with her.

The foetus will be affected by the alcohol and could be permanently damaged. But just how much alcohol a woman can drink without harming the foetus has not been determined.

Dr John Rogers, medical geneticist with the Royal Children's Hospital and the Queen Victoria Medical Centre in Melbourne, says it has been suggested that if a woman drinks 30 ml of pure alcohol or more a day during pregnancy, she is putting her foetus at risk.

According to the Victorian Health Commission 30 ml (1 oz) of alcohol would be roughly equal to either three standard (200 ml) glasses of beer; three standard (90 ml) glasses of wine; three standard (60 ml) glasses of sherry or one nip of spirits. When a pregnant woman drinks alcohol it is absorbed into her bloodstream and passes through the placenta into the blood of the foetus. Therefore, if she drinks three glasses of wine in quick succession, her foetus is also being force-fed the three glasses.

Although doctors have only recently become aware of what is now called the Foetal Alcohol Syndrome, the link between alcohol and foetal abnormalities goes back a long way. In early Greek and Roman times, bridal couples were forbidden to drink wine on their wedding night 'in order that defective children might not be conceived'.

In 1834, a British parliamentary select committee investigating drunkenness noted in its report that infants born to alcoholic mothers sometimes had a 'starved, shrivelled and imperfect look'.

It was Dr Elizabeth Turner, of Melbourne, who rediscovered the Foetal Alcohol Syndrome.

"I noticed it in the early 1960s," she says. "I had these children coming along to me who all had these tiny little faces and features. Some were retarded, most were nice little children, but they were all fairy-like and wistful."

"The babies were brought to me because they were suffering from what is known as failure to thrive. They all had similar faces, long upper lips, small eyes

and pursed, tight little mouths. They all had a rather worried, anxious look about them. They were always very small babies because the alcohol affects the growth in the uterus.

"The 16th-century British painter, Hogarth, painted a picture of women drinking gin while they had their babies with them," she says. "All the babies had these typical faces. This condition has been around for a long time."

Dr Turner says that even now she can pick adults whom she believes were affected by alcohol before they were born. "They all have a similar look. They are, always, little people and don't have a catch-up growth."

Babies most severely affected by alcohol can be physically and mentally retarded and have a characteristic set of facial features. In rare cases, they can also have other malformations, such as heart and kidney defects.

The stage in the pregnancy at which a woman drinks alcohol is another important consideration. Mr Brian Potter and a team of scientists are working on that problem at the CSIRO in Adelaide.

"We feel that alcohol probably has a greater effect on the foetus during the first trimester (three months) than at any other time" he says.

"If it is true that the foetus is at its most vulnerable to alcohol in the early stages of pregnancy women face an even greater problem in those early weeks when they may not even know they are pregnant."

Both doctors say some women are often vague about the amount of alcohol they drink during pregnancy.

"They say they haven't been drinking at all, when you know by looking at the babies that they have been," Dr Turner says. "It's often the relatives who tell you in the end."

However, both doctors say the woman who has the occasional glass of wine at a social event probably would not be endangering her unborn child.

"But," Dr Turner says, "the message to get across is that, to tiny developing babies who are so sensitive to any poison, alcohol is a poison and nicotine is also a poison. No one can tell you how much poison it will take to affect the foetus."

Alcohol causes interuterine dwarfism, Dr Turner says. "The babies are born smaller because the alcohol has stunted them in the uterus."

"People complain about the effects of things like 2-4-5T and other chemicals, but nobody makes a fuss about pregnant women who drink all day. They complain about pregnant women taking drugs like aspirin, yet smoking and drinking do far more damage."

"You must eat and drink the proper things during pregnancy if you want a healthy baby. If you drink and inhale toxins then you will have problems."

Dr Gillian Turner of the Prince of Wales Children's Hospital in Sydney has a strong interest in FAS, but she wouldn't ask pregnant women to cut out drinking alcohol completely.

"I don't think we should be that authoritarian," she says. "If a woman is thinking of getting pregnant, then I would suggest she doesn't drink too much. I think that if there is even a slight risk, it is better to avoid it."

Even less is known about the damage done to the foetus by 'binge' drinking, but recent evidence from research in NSW suggests that a single night of excessive drinking during the early stages of pregnancy can damage the foetus permanently, producing babies which are physically and mentally handicapped.

Dr Elizabeth Turner says: "If you go on a binge when you are pregnant, you harm yourself and your baby. You will probably get over your binge, the foetus probably will too, but the alcohol will have been an assault upon it at the time."

She says the effects of the binge on the foetus "are the same as if you took your baby out and got it sozzled; it would be a very sick baby. It would cry, it would probably vomit, its liver would be temporarily out of action and it would have a hangover later."

Dr Rogers says there have been suggestions in the U.S. that labels on bottles of alcohol should carry health warnings in the same way that cigarette packets do. "The link between alcohol and abnormal babies is at least as strong as the link between cigarettes and cancer," he says.

DEBORAH FORSTER  
WARNING LABELS



Patron: *Jacqueline Birrell*

April 2007

We very much appreciate the opportunity of writing to you on what People Against Drink Driving (PADD) believe to be a very important matter which impinges on public health for the majority of Australians.

We wish to bring to your notice our grave concerns over the "Australian Alcohol Guidelines" quotes relating to alcohol posters and coasters, which were released to the Australian public soon after the "Australian Alcohol Guidelines" book was completed after October 2001. The posters bore the N.H.M.R.C. and Government endorsement. The posters proclaimed boldly the captions "ALCOHOL AND YOUR HEALTH".

As Consumers' Health Forum Representative on the Working Party which formulated the production of this book over a two-year period, I have been very worried indeed about what I knew to be glaring errors and omissions in selected extracts which were disseminated Australia-wide, free on demand and which we consider were dangerous to health.

These posters and coasters recommending increased drinking levels advised that the new rate of alcohol consumption to be no more than 6 drinks on any one day for men and no more than 4 standard drinks on any one day for women, but omitted the following categories of men and women for whom the above drinking advice does not apply. WHY ? — because the guidelines state that the following exemptions are crucial.

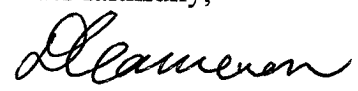
- 6x4 increased drinking levels do not include the following groups of people:
- Women who are pregnant.
- Women who are planning to become pregnant.
- Women who are breastfeeding.
- Persons below average body size.
- Those who are about to undertake any activity involving physical risk or a degree of skill, such as driving, flying, water sports, skiing, using complex or heavy machinery or farm machinery.
- Those who are on any medication or other drugs.
- Those with a family history of alcohol-related problems.

- > The omission of this significant list of exemptions from the Guidelines drinking levels is a great risk to people and a national scandal we believe, because it is distributed under Government sanction purporting to be health advice.
- > To the undersigned, it shows an urgent need for health warning labels on beverage alcohol containers, especially as the majority of Australians have polled in favour of such labelling.
- > We shudder to think how many extra car crashes, deaths and serious injuries have been caused between the years of 2001 – 2007 inclusive by distribution and display of the posters and coasters which do not carry any caveats or exceptions of drinkers exempted.
- > Similarly, how many pregnant women, or those intending to have a child, will suffer from reading the quantities of alcohol recommended by the posters without qualification. The likelihood of such advice without crucial caveats is a great threat to the health of women and particularly to potential babies and fetuses.

The advice is a disaster in the making!

I am enclosing supporting papers for your interest.

Yours faithfully,



Donald Cameron  
State Director for P.A.D.D. (Vic.)

\* This poster and others like it in the series completely ignored the exemptions, or exceptions of people for whom the 6 m x 4 m advice was not only inapplicable it was downright dangerous.

NOTE - THE GUIDELINES DESIGNATED IN THE TEXT (OCT 2001) AS EXEMPTIONS

LIST → "CRUCIAL"





## ADVICE TO BOTH PARENTS RE INTENDING PREGNANCY

### \* **FAS - Is it worth the Risk?**

- \* **Foetal Alcohol Syndrome** is the most devastating occur as the result of drinking alcohol by a pregnant woman last a lifetime. Alcohol causes damage to the development
- ⇒ excessive cell death
  - ⇒ impairment of Cell Development, including growth
  - ⇒ disruption of cell migrational pattern meaning particular place to go in the brain may end up in a
  - ⇒ inhibited nerve growth which prevents messages from one area to another

#### \* **GROWTH DEFICIENCY—**

- babies born abnormally small - weight, height and
- common problems - hip displacement, club foot, cleft palate, abnormal finger joints and curved fingers
- facial abnormalities - of the eye including small eyes and/or strabismus i.e. crossed eyes
- short nose
- thin upper lip
- indistinct philtrum (grooves between nose and mouth)
- small midface

*In adolescence they tend to begin looking more normal*

#### \* **DYSFUNCTION OF THE CENTRAL NERVOUS**

FAS children typically have average IQ's of low 70's or lower. They have difficulty with general intellectual academic skills and experience

- attention and memory deficits
- hyperactivity
- difficulty with abstract concepts like maths, time
- poor judgment
- immature behaviour and little impulse control
- delayed reaction time
- lack of balance and poor motor skills

Problems functioning socially tend to worsen and it is difficult to go to school, keep a job, or maintain healthy relationships. Boys with the law and unwanted pregnancies are common with FAS. Institutionalized, cared for in foster homes or supervised group homes have mental health problems and most seek professional help. **To qualify for any FAS related diagnoses there must be alcohol exposure!**

### **MEN.** \*

**it's your  
responsibility too!**



- \* Alcohol can affect a man's ability to father healthy children in these ways -
- alcohol lowers a man's testosterone levels
  - heavy consumption during adolescence may permanently alter the DNA in the man's sperm
  - alcohol use at the time of conception decreases the mobility of healthy sperm
  - babies born to alcoholic parents may inherit the tendency to become alcoholics
  - children born to fathers who consume large amounts of alcohol are statistically at greater risk for difficulties such as learning disabilities, behaviour problems and mental health issues.

The solution to the problem is both simple and complex.

\* **MEN - say "NO" to alcohol** and you will definitely avoid these problems. **AND ...**

\* **Women do NOT drink alcohol** throughout your entire pregnancy or when hoping to be pregnant and none of these conditions can occur.

**Let's stop the risk of alcohol and the unborn so we can enjoy healthy babies!**

*("Is it worth the risk?" - the main text of the speech presented by Miss Sarah Ward of USA in the World Speech Contest).*

## FOETAL ALCOHOL SYNDROME:

\* Page xxx iii - Quote from Special Report In the American Congress, 1997 - "Alcohol and Health".

- i) \* Because it is clear that alcohol-induced birth defects are completely preventable with maternal abstinence from alcohol, prevention is a central issue. Results of studies examining how prenatal alcohol exposure injures the developing brain indicates that such exposure can produce profound anatomical changes in the foetal central nervous system by altering cell proliferation migration and pruning

Also on page 13 with the paragraph beginning "An analysis of the many studies of mortality in relation to alcohol show that the lowest risk for overall mortality was zero consumption of alcohol (as is the case for unborn children)

- ii) \* Maternal drinking can produce a spectrum of harmful effects in exposed offspring, ranging from a characteristic pattern of gross morphological anomalies and mental impairment to more subtle cognitive and behavioural dysfunctions FAS is the most severe clinical outcome of prenatal alcohol exposure; three clinical criteria are used to diagnose the syndrome. ARBD and FAE are used to describe individuals who exhibit only some of the attributes of FAS and do not fulfil the diagnostic criteria for FAS.

- iii) \* In view also of Sue Mier's Report on Foetal Alcohol Syndrome in Australia", as well as the above evidence, I cannot subscribe to anything, more than no alcohol for intending mothers Or pregnant women, because there is increasing evidence to show that many school children have to be drugged because they are suffering from neurological and behavioral disorders caused years earlier by parental ingestion of alcohol.

- 1 ALCOHOL IS A KILLER DRUG OF ADDICTION SECOND ONLY TO TOBACCO IN MORTALITY RATES FOR DANGEROUS DRUGS, (6,500 DEATHS p.a.)
2. IT IS AN "ACROSS THE BOARD" CATALYST TO SO MUCH TRAUMA AND NEGATIVE CONSEQUENCES (INCLUDING OUR ROAD TOLL)
3. THE COSTS OF ALCOHOL IN MONEY TERMS ARE SUCH THAT FOR EVERY DOLLAR EARNED BY ALCOHOL IT COSTS THE COMMUNITY \$5 WHICH WE ALL HAVE TO CARRY
4. GIVEN A BACKGROUND OF LOW SELF ESTEEM OR DISRUPTED FAMILY OR SIMILAR FOR AN ALCOHOL USER, THEN ALCOHOL MAY BECOME A PATHWAY DRUG TOWARD DRUG USE SUCH AS HEROIN *(also a psycho-active drug as is alcohol.)*

## HEALTH WARNING LABELS ON ALCOHOL

-2-

### Supporting Information

\* Despite over 2000 papers being published in recent years on the subject, the amount of alcohol required and the exact times of consumption during pregnancy likely to cause Foetal Alcohol Syndrome (FAS) has not been established. This is partly due to the difficulty of conducting research. However, findings nearly unanimously show that alcohol consumption in pregnancy is associated with foetal harm despite there being little concrete evidence (M. Plant "Women, Drinking and Pregnancy" p50, para 2,3.)

The effects on women and their offspring has been documented throughout history. The earliest references are in the Old Testament - Judges 13:7 and the Talmud advising against the consumption of alcohol. Indeed, in the ancient cities of Carthage and Sparta the consumption of alcohol was forbidden to all men and women below the age of 30 who were newly married. This was in order that "defective children would not be conceived."

In England, William Sullivan, physician to a Liverpool prison, conducted a study in 1899 on the effects of alcohol in pregnancy, which showed that "still births" and infant mortality rates were 2 1/2 times greater in women who drank than those who did not. Modern studies support Sullivan's findings. F.A.S. was first identified in 1968 by French clinicians.<sup>12</sup> In 1973, world-wide attention was focused on alcohol related birth defects when Dr. K. Jones and colleagues reported in the Lancet the association between maternal alcoholism and certain foetal defects (prenatal growth deficiency, development delay, short palpebral fissure in 100 per cent of cases. Other common features were microcephaly, fine motor dysfunction, joint and cardiac anomalies. Distinctive-facial features were noted).

\* Most of the research has been undertaken in the U.S.A., however a little has been conducted both in the U.K. and Australia. Studies have been published since the initial recognition of the F.A.S., from several countries: Sweden, South Africa, Chile, U.S.A., West Germany, Northern Ireland, England and Scotland.

A private Members Bill currently before the Canadian House of Commons, Action News (1996) would require all beverage containers to carry the warning "consumption of alcoholic beverages impairs a person's ability to operate machinery or automobile and may cause health problems or cause birth defects during pregnancy".

\* Material read concerning alcohol and pregnancy shows that the ways alcohol produces birth defects are most complex. Figures suggest that high alcoholic intake of 90mg. or more/day can cause FAS while 15mg. can cause lesser effects known as Foetal Alcohol Effect (FAE). Although less severe, FAE is a greater problem than FAS being estimated to occur in 3-5/1000 live births as against 1-3/1000 live births for FAS. Estimates of 5% alcohol related birth defects causing mental retardation disregard chromosome malformations related mental retardation. Symptoms causing FAE are hard to diagnose because of possible multiple drug use. Chronic alcohol addiction may be associated with

3/.....

effect on an individual's ability to live independently. Although many of the physical characteristics become less prominent after puberty, intellectual problems endure and behavioral, emotional, and social problems become more pronounced. Children with FAS and ARBD frequently are described as being hyperactive and impulsive and having short attention spans. Maladaptive behaviors, such as poor judgment, failure to consider the consequences of one's actions, and difficulty perceiving social cues, are common.

The relationship of quantity, frequency, timing, and pattern of maternal drinking to infant and child outcome has been addressed by prospective longitudinal studies. Findings from some, but not all, of these studies have revealed an association between prenatal alcohol exposure and growth deficits at birth; these deficits have been found to persist in infants 6 to 8 months after birth and in children 6 years of age. Prospective studies also have reported a range of behavioral and cognitive deficits in infants exposed to alcohol in utero.

Studies have yet to reveal fully how the timing of alcohol exposure, dose response, and maternal drinking patterns disrupt particular stages of development. For example, several longitudinal studies have found that first-trimester exposure to alcohol is associated with craniofacial anomalies in children. The association between timing and growth, however, is not as clear. Neurobehavioral effects seemingly are sensitive to periods of exposure during development. Studies suggest that heavy maternal alcohol use during the first and second trimesters appears to increase the occurrence of delayed language development in children.

Because it is clear that alcohol-induced birth defects are completely preventable with maternal abstinence from alcohol, prevention is a central research issue. Researchers are attempting to develop multilevel strategies that take into account the multiple factors that influence drinking in different racial, ethnic, and socioeconomic segments of society. These strategies, which ideally will interact to enhance prevention outcome, include community education programs to increase awareness of the hazards of drinking alcohol during pregnancy, approaches to effectively identify women whose drinking places them at risk for adverse pregnancy outcomes, and strategies aimed at intervening with individual women who are problem drinkers and thus at greatest risk for having a child who is affected by alcohol.

Animal models and in vitro biological systems enable researchers to conduct controlled experiments on the interaction of the complex pharmacologic, biochemical, and physiologic effects of alcohol with genetic, experiential, social, and behavioral factors that influence alcohol's effects in humans. Animal experiments have demonstrated that peak maternal blood alcohol concentration determines the likelihood and severity of alcohol-induced impairments. In addition, animal studies have demonstrated that the period(s) during pregnancy when blood alcohol concentration is high has an important influence on the variable expression of ARBD.

The consequences of alcohol exposure are similar in animals and in humans. Animal studies suggest that prenatal alcohol exposure causes poor somatic growth, malformation of major organs, craniofacial anomalies, and associated central nervous system dysfunction. Animals exposed prenatally to alcohol also exhibit neurobehavioral problems, such as hyperactivity, perseveration, poor balance and coordination, difficulty walking, and inability to learn from past experiences.

Results of studies examining how prenatal alcohol exposure injures the developing brain indicate that such exposure can produce profound anatomical changes in the fetal central nervous system by altering cell proliferation, migration, differentiation, and pruning. Dose, duration, and pattern and timing of exposure can influence the specific neuroanatomical outcomes. Alcohol also appears to have concentration and time-dependent effects on neural tube formation. Prenatal exposure may also affect the development and function of glial cells, which are "nonneural" cells in the brain that participate in a variety of normal functions. Finally, animal studies indicate that prenatal alcohol exposure affects neurotransmitter systems in the brain, including the serotonin, dopamine, acetylcholine, glutamate, and gamma-aminobutyric acid systems; the nature of the dysfunction may depend critically on when alcohol exposure occurs in development.

Studies using experimental animals and in vitro models have described the roles of acetaldehyde, retinoic acid, nerve growth factor, glucocorticoids, free radicals, and hypoxia in alcohol-induced fetal damage. Greater knowledge of the mechanisms of alcohol teratogenesis has important implications for risk assessment and the development of effective strategies for the prevention of alcohol-induced birth defects in humans.

*adverse health effects*

Alcohol abuse also contributes to heart and cardiovascular disease, although light drinking appears to have some benefits for cardiac health. Heavy alcohol consumption can interfere with the mechanical functions of the heart and may cause progressive functional changes and tissue damage leading to cardiomyopathy and heart failure. Excessive alcohol consumption also is associated with high blood pressure and an increased risk for coronary artery disease and stroke. However, light to moderate drinking appears to be beneficial in preventing coronary artery disease, perhaps by elevating blood levels of high-density lipoprotein or by inhibiting clotting processes that contribute to atherosclerosis and thrombosis.

Alcohol-associated neuropsychological disorders typically involve damage to the limbic system, the diencephalon, and the frontal cerebral cortex of the brain. Among the many and diverse neuropsychological problems resulting from this damage are deficits in short-term memory, disruption of cognitive and motor functioning, reduced perceptual abilities, and emotional and personality changes. With advances in brain and functional imaging techniques and with the development of neurocognitive tests, researchers hope to identify connections between alcohol-associated structural and metabolic changes in the brain and alcohol-associated impairment in mental processes.

A variety of studies show that alcohol interferes with normal endocrine system activities. Excessive alcohol use may profoundly impair reproductive development and function in both women and men. Recent studies in women show that alcohol consumption may increase estrogen levels; this effect may be related to an observed association between alcohol consumption and increased risk for breast cancer. Chronic alcohol exposure may also alter the secretion patterns of growth hormone. Consequences of this disruption may include numerous metabolic and endocrine changes, because growth hormone regulates levels of other growth stimulators as well as alcohol- and steroid-metabolizing enzymes. In addition, alcohol withdrawal induces marked elevations in glucocorticoid stress hormones. Glucocorticoids in excess may be neurotoxic; thus, glucocorticoid elevations may contribute to the behavioral and neurological changes observed with withdrawal.

In healthy individuals, the complex network of lymphoid cells and regulatory cytokines that compose the immune system efficiently detects and eliminates

*Alcohol on Fetal - Postnatal dev.*

potential pathogens. Alcohol consumption, particularly of a chronic or abusive nature, depresses the immune system by altering the function, regulation, and distribution of lymphoid cells. The result may be dysregulation of immune defenses and an increased susceptibility to infectious disease and cancer. Immunological abnormalities observed with long-term alcohol abuse in humans also include autoimmune processes that damage liver tissues.

\* Chapter 6: Effects of Alcohol  
on Fetal and Postnatal  
Development

Maternal drinking can produce a spectrum of harmful effects in exposed offspring, ranging from a characteristic pattern of gross morphological anomalies and mental impairment (including mental retardation) to more subtle cognitive and behavioral dysfunctions. Fetal alcohol syndrome (FAS) is the most severe birth defect produced by prenatal alcohol exposure; the terms "alcohol-related birth defects" (ARBD) and "fetal alcohol effects" (FAE) are used to describe individuals who exhibit some of the attributes of FAS but do not fulfill the diagnostic criteria for FAS.

Despite the existence of standardized criteria, clinicians and researchers have considerable difficulty identifying individuals with FAS, for a variety of reasons. For example, none of the characteristic abnormalities of the syndrome is specific to the diagnosis. In addition, specific facial abnormalities may be subtle and difficult to recognize, their expression may change with age, and their severity may vary among individuals and among racial and ethnic groups. Identification of individuals with ARBD or FAE, who can have behavioral and cognitive problems that persist with age, may be even more difficult than diagnosis of FAS. In response to these diagnostic challenges, researchers are exploring the use of new tools that may improve efforts to diagnose FAS. These tools include computer-assisted morphometric analysis of facial features; magnetic resonance imaging of the brain, which can reveal markers of alcohol-induced injury; and behavioral profiles of people affected by prenatal alcohol exposure.

Recent studies indicate that the deficits associated with FAS are pervasive and long lasting and have a marked

## ALCOHOL PREGNANCY + CHILDREN

3.

There is clear evidence to show that alcohol is associated with an increased risk of cancer overall..

\* When a pregnant woman drinks, the alcohol in her blood stream enters that of her unborn child and it is known that in sufficient quantities, this can cause problems for the child. It has not been scientifically proven that even less than one glass of alcohol may not harm the developing foetus.

\* "Alcohol can be harmful to persons in every age group, even the unborn and to people in all walks of life".

It is also an important contributing factor in some cases of suicide. "In particular, there is a strong relationship between alcohol use, anxiety and depression, and drinking is known to significantly increase the risk of suicide in people with depression (Lynskey 1998)."

It has been estimated that 70 – 80 percent of night time assaults and violence involve prior consumption of alcohol and rates of night time assaults are determined to be highly associated with local rates of alcohol sales.

\* School children are being given educational information on alcohol and some of the problems it can cause. But young working people are not informed. The advertising and publicity of alcohol is so constant and attractive it will undo much of the education on alcohol being taught in schools.

\* The National Alcohol Strategy is founded on the false premise that it is acceptable to encourage the consumption of alcohol and then deal with the harm that it has caused.

Alcohol is an addictive drug and the advertising should be restricted as with tobacco.

Treating alcohol as an addictive drug as is tobacco may help to save many lives.

Yvonne G. Tilley    *NCW Tasmania*

## 11. Guidelines for specific situations



### 11.1 Alcohol consumption and pregnancy

The teratogenic effects of alcohol have been commented on above. Clinically the risks include spontaneous abortion<sup>178</sup>, prematurity<sup>179</sup>, still birth and major abnormality<sup>180</sup> including the foetal alcohol syndrome.<sup>74,181</sup> Even low consumption of one or two drinks per week has been associated with an increase in spontaneous abortion.<sup>178</sup> In animal studies consumption of alcohol episodically in high doses was particularly teratogenic.<sup>39,40</sup> Other studies suggest that two<sup>182</sup> or four<sup>183</sup> drinks per day have no significant effect. This has recently been confirmed by the prospective study of Walpole and others.<sup>78</sup> Conversely Streissguth *et al.* 1990<sup>77</sup> have found lasting consequences resulting from 20 grams or more of alcohol consumption during mid pregnancy and binge drinking of five or more drinks prior to pregnancy recognition. The apparent variability in the foetal response to alcohol remains to be understood, thus caution needs to be exercised when suggesting any guidelines.

what  
when  
pregnant

At our current level of knowledge, responsible drinking during pregnancy must still be considered to be abstinence. This has been recommended by a number of authorities.<sup>201,180,184</sup> Drinking up to two units (20 g) per day regularly should be considered to be hazardous and drinking more than this regularly, harmful. Of particular note, is the possible harmful effect of consumption of a large dose of alcohol on any occasion especially early in pregnancy.

### 11.2 Responsible drinking and the operation of machinery

new  
drivers

We would reiterate the view expressed in the Royal College of Psychiatrists report<sup>28</sup> which stated that anyone driving a vehicle should not drink at all beforehand. There is abundant evidence that responsibility is not being exercised by a significant percentage of drivers<sup>192</sup> and it is this behaviour which leads to greatest proportion of preventable alcohol related mortality.<sup>7,129,130</sup> This is even more true for motor cyclists, when driving at night, when a driver is taking medication, is inexperienced or weary; any alcohol consumption magnifies risk.<sup>16,17</sup> Responsibility can only be exercised and safety achieved, if persons in



FROM PREVIOUS NHMRC  
GUIDELINES 1992

"Is there a safe level of alcohol  
consumption"?

## Article Sun Herald (Sydney) Apr 15, 2007 – Page 89

Drinking alcohol directly causes two of Australia's most common cancers, breast and bowel, a landmark international study has found.

- \* The World Health Organisation says there is enough evidence to add breast and colorectal cancer to the list of cancers already associated with drinking alcohol, which include mouth, throat and liver cancer.

W.H.O.'s International Agency for Research (I.A.R.) estimated that those who drank 60 grams of alcohol a day were 40% more at risk of getting colorectal cancer than non-drinkers.

- \* Women who drank 50 grams a day faced a 50% increased risk of breast cancer.

- \* EVEN WOMEN WHO HAD 18 GRAMS A DAY – LESS THAN TWO STANDARD DRINKS SHOWED A SIGNIFICANT CANCER RISK. WITH BEER WINE AND SPIRITS ALL CONSIDERED TO HAVE A CARCINOGENIC EFFECT, Alcohol is the biggest single cause of carcinogens which cause a range of abnormalities in the human foetus. Source: DR PHILLIP KENSCHKE  
PEDIATRICIAN, ROYAL WOMEN'S HOSPITAL

The Australian Institute of Health and Welfare showed however, that more than  $\frac{1}{3}$  of drinkers were consuming alcohol as risky levels.

- \* The findings in this article are the work of 25 scientists from 15 countries and published in the April issue of "THE LANCET – ONCOLOGY".





A spokeswoman for the National Organisation for Foetal Alcohol Syndrome and Related Disorders, Sue Miers, said labeling alcohol was a great step in preventing alcohol-related disorders.

"I think alcohol must be one of the only substances known to cause harm that doesn't have a warning label telling people the facts," she said. "It won't stop women who have addiction issues but it's a really good step for awareness raising, which is a good step to prevention.



**ALCOHOL IS THE BIGGEST KNOWN CAUSE OF THE TERATOGENS WHICH CAUSE DAMAGING EFFECTS TO THE DEVELOPING FOETUS IN A PREGNANT WOMAN**

*Paediatricians Henschke and O'Sullivan (2001)*

**Comments from Paediatricians – Royal Womens' Hospital**

A child of a drinking mother can have neurological deformities, which can and do cause behavioural irregularities in early childhood, and during later schooling – such damage lasts for life and alcohol escapes detection as the cause because of the lapse of time involved between alcohol ingestion by the mother and the damage which occurs later.

## **'I felt guilty that I had risked by son's health and ... ruined his life'**

Picture follows



Elizabeth Russell holds a photograph of her two sons, who suffer foetal alcohol damage. She lives with the guilt that she ruined their lives with her drinking during her pregnancies (Picture Merideth O'Shea)

## **Please don't do what I did, pleads mother who drank**



Elizabeth Russell lives with the guilt that she ruined her sons' lives after drinking during her pregnancies. But now she is trying to prevent other women from unknowingly doing the same.

Ms Russell is a recovering alcoholic who in 2001 found that her addiction had physically harmed her two sons.



Her elder son, 26 was diagnosed with "alcohol-exposed neurodevelopmental disorder" and the younger son, 22 has full foetal alcohol syndrome (FAS).

People with these conditions are born with birth defects that can involve brain damage, as well as facial abnormalities.

As adults they can experience developmental delays, learning difficulties and behavioural problems.

But for Ms Russell, it wasn't until her boys were older, and she had seen a number of doctors, that their conditions were diagnosed.



"My youngest son was getting into a lot of trouble from 13 years on and before that he had some strange behaviours.



"But when he was working he started using drugs, alcohol, going out in the middle of the night. I just didn't know what was going on with him," she said.

"He'd been diagnosed with ADHD so I did some research on that and then found out foetal alcohol syndrome existed."

Ms Russell went to her doctor, who she says, asked her why she would put herself through such trauma.

"I went to so many doctors who didn't want to listen, wouldn't give me any information or referrals."

She decided to attend a conference on FAS in Canada and met a doctor who was able to diagnose her boys using their background information and from viewing their facial features on a photograph.

"I felt absolutely distraught. I felt guilty that I had risked my son's (health) and that I had more or less ruined his life."

\* The Age Newspaper Melbourne 22 April 2007.

## Booze alert for pregnant mums

\* RENEE SWITZER - Health

Page 1

\* LABELS warning pregnant women of the risks of drinking could be put on alcohol bottles in Australia and New Zealand.

Food Standards Australia New Zealand (FSANZ) is reviewing an application lodged by the Alcohol Advisory Council) calling for labels advising of the risks of consuming alcohol when planning to become pregnant and during pregnancy.

\* The application states: "Alcohol consumption in pregnancy has the potential to harm the foetus at all stages and particularly in the early stages of pregnancy when the foetus is forming... Many women do not know of this risk, or, if they do, could benefit from a reminder of the risk at the time of planning to drink alcohol."

\* A spokeswoman for ALAC said if the application were accepted consultation would be held with interested parties to decide on the wording and design of the labels.

FSANZ spokeswoman Lydia Buchtmann said the application would be put out for public comment in May. "ALAD's asking us to put an advisory straight on to alcohol warning pregnant women about the risks of drinking alcohol," she said.

"We have to look at that and see whether there is scientific evidence of that and whether it's a good way of reaching pregnant women."

But the Winemakers Federation of Australia believes no decision on labeling should be made until the end of the year, when the National Health and Medical Research Council (NHMRC) releases its revised guidelines on drinking while pregnant. The NHMRC is conducting a routine review of the *Australian Alcohol Guidelines: Health Risks and Benefits*, to determine "how much is too much" for all sections of the population.

\* NHMRC spokesman Nigel Harding said the guidelines for pregnant women had attracted "fairly regular criticism".

\* "We're certainly mindful of that particular criticism, so the team is going to be looking at all the scientific evidence to see if there's enough evidence there to make a change." He said.

\* Current guidelines advise no more than two standard drinks a day and no more than seven standard drinks a week for pregnant women.

Mr Harding said the revised guidelines would go out for public consultation by the end of July, with final recommendations due in December.

Australian Winemakers Federation chief executive Stephen Strachan said there was no evidence that warning labels would work and a better solution would be a public awareness campaign.

"The industry doesn't rule out having labels identifying the risks of foetal alcohol syndrome but we would like to see the evidence," he said.

\* (Please note that the industry stated the principle of warning labels on alcohol at the time of the application to move for warning labels for alcohol containers in a submission to ANZFA by SWAT & interested parties)

Ms Russell said she had "absolutely no idea" about the risks of drinking alcohol while pregnant.

"I stopped smoking and I took vitamins and had no idea that alcohol could cause any damage.

In fact, my doctor basically said to me alcohol wasn't a problem."

Since her sons have been diagnosed Ms Russell has written two books on her family's experience with FAS as well as others' experiences.

She is now fighting to have national alcohol guidelines changed to advise women to avoid all alcohol while pregnant. "From personal experience with friends of mine, doctors are still saying it's OK to drink when you're pregnant.

"Abstinence is by far the best and I'll fight to the end about that because abstinence says it's crucial, whereas (the current guidelines are sort of nonchalant, it's not really going to matter -- and boy, it matters."

Ms Russell is also lobbying to have diagnostic clinics set up in major cities around the country so that alcohol-related conditions can be identified.

"There's nobody who is able to diagnose properly in Australia -- there are about 70 clinics in Canada and not one in Australia."

RENEE SWITZER

LINK

[www.nofasard.org](http://www.nofasard.org)

## Chapter 6

# Effects of Alcohol on Fetal and Postnatal Development

*Alcohol and Health*,  
1997

(from 1997 Select  
Committee Report)  
American Congress

## Introduction

Since fetal alcohol syndrome (FAS) was first identified independently in France (Lemoine et al. 1968) and in the United States (Jones et al. 1973), more than 2,000 scientific reports have been published about the harmful effects of alcohol on the fetus (Streissguth et al. 1991). These reports trace the evolution and document the advances of this research area, including the clinical recognition of alcohol-induced birth defects, the experimental establishment of alcohol as a physical and behavioral *teratogen*,<sup>1</sup> the development of animal models to explore mechanisms underlying fetal defects, and the pursuit of clinical studies to assess the specific relationships between prenatal alcohol exposure and fetal development. Findings from many of these reports have been reviewed in previous editions of the *Special Report to the U.S. Congress on Alcohol and Health*.

This chapter builds on the overview presented in the last Special Report by highlighting current knowledge about the effects of alcohol on pregnancy outcome. Because the literature in this area is vast, this review considers only a selection of current work, to provide a sense of the significant currents in the field. The first section examines recent progress made in clinical studies. Among the topics discussed are diagnosis and incidence of FAS, followup studies examining the long-term developmental problems associated with FAS,

prospective longitudinal studies that consider the scope of maternal drinking practices and the spectrum of defects that can occur in offspring, differences among offspring in their vulnerability to FAS, and measures to prevent alcohol-induced birth defects. The second section describes animal studies. Recent findings on the general principles of alcohol teratogenesis, consequences of prenatal alcohol exposure in animals, potential risk factors for alcohol-related birth defects (ARBD), and mechanisms of alcohol teratogenesis are presented.

## Diagnosis of Fetal Alcohol Syndrome

A key concern in research and clinical practice continues to be how best to characterize and identify FAS and other ARBD arising from prenatal alcohol exposure. Research has shown that in utero alcohol exposure can produce a spectrum of harmful effects, ranging from a characteristic pattern of gross morphological anomalies and mental impairment (including mental retardation) to more subtle cognitive and behavioral dysfunctions. FAS is the most severe birth defect produced by in utero alcohol exposure. The terms "fetal alcohol effects" (FAE) and "alcohol-related birth defects" are used to describe individuals who exhibit only some of the attributes of FAS and thus do not fulfill the diagnostic criteria for the syndrome (Clarren and Smith 1978; Sokol and Clarren 1989).

<sup>1</sup>For a definition of *teratogen* and other terms in this chapter, see the glossary.

Finally, hypoxia can increase the levels of free radicals (Michaelis and Michaelis 1994), which can damage the cell surface and allow calcium to leak into and accumulate in cells. Abnormal accumulation of calcium in nerve cells may cause them to release excess neurotransmitters that, in turn, can have toxic effects on certain cells.

Of note, however, are findings that suggest that hypoxia may not be involved in alcohol teratogenesis. Smith et al. (1989) exposed near-term pregnant sheep to doses of alcohol equivalent to binge-type drinking. The investigators found that such exposure did not produce fetal hypoxia or acidosis. Thus, the body of literature in this research area indicates that hypoxia is an interesting potential mechanism, but more research clearly is needed.

### Summary

#### IVE

For various reasons, clinicians and researchers continue to have difficulty identifying individuals with FAS. For example, none of the characteristic abnormalities of the syndrome is specific to the diagnosis. In addition, specific facial abnormalities can be subtle and difficult to recognize, their expression can change as a person ages, and their severity may vary among individuals and among different racial and ethnic groups. The challenge may be even greater in identifying children and adults who exhibit only some of the attributes of FAS. Although these individuals may not fulfill the diagnostic criteria for FAS, they can have behavioral and cognitive problems that persist with age and can restrict normal functioning.

Researchers are examining various tools that can improve and simplify efforts to diagnose FAS. Among these tools are computer-assisted techniques that facilitate morphometric analysis of facial features of people with FAS, behavioral profiles of people who are affected by prenatal alcohol exposure, and imaging

techniques that can reveal markers of alcohol-induced injury in the brains of affected individuals.

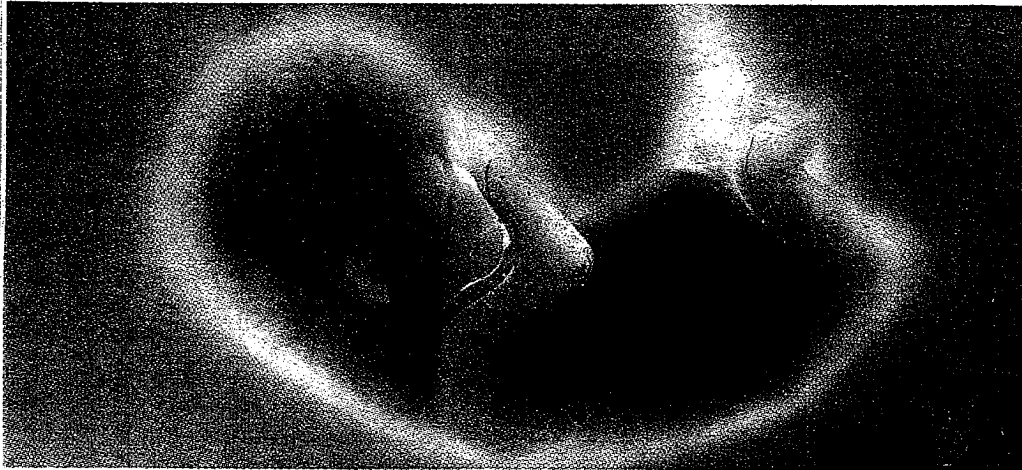
Studies are beginning to reveal how people with FAS develop as they age. Recent findings indicate that the deficits associated with FAS are pervasive and long lasting. Although many of the physical characteristics become less prominent after puberty, intellectual problems endure and behavioral, emotional, and social problems become more pronounced. One study reported that arithmetic skills in adolescents and adults with FAS were at the second- to fourth-grade levels; these individuals have particular problems with abstractions, such as cause and effect or time and space, as well as generalizing from one situation to another. Such deficits had a marked effect on an individual's ability to live independently.

Children with FAS and ARBD frequently are described as being hyperactive and impulsive and having short attention spans. Maladaptive behaviors, such as poor judgment, failure to consider the consequences of one's actions, and difficulty perceiving social cues, can be common, even among alcohol-affected persons who are not considered to be retarded according to IQ scores.

Prospective longitudinal studies are providing knowledge about the full spectrum of deficits that may result from in utero exposure to alcohol. These studies consider the scope of drinking practices among women and thus provide an opportunity to measure the relationship of quantity, frequency, timing, and pattern of drinking to infant and child outcome. Findings from some, but not all, prospective studies have revealed an association between prenatal alcohol exposure and growth deficits at birth; these deficits have been found to persist in infants 6 to 8 months after birth and in children 6 years of age. Prospective studies also have reported a range of behavioral and cognitive deficits in infants exposed to alcohol in utero.

Studies have yet to reveal fully how the timing of alcohol exposure, dose response, and maternal drinking patterns disrupt particular stages of fetal development. According to several longitudinal studies, first-trimester exposure to alcohol is associated with craniofacial anomalies in children. The association between timing and growth, however, is not as clear, perhaps due to the varying postnatal stressors and doses of alcohol exposure in the different studies. Alcohol-induced neurobehavioral effects also may be sensitive to periods of exposure during development. For example, heavy maternal alcohol use

# come under fire



**Foetus:** A foetus is most susceptible to damage from alcohol in the first three weeks between conception and the first missed period.

"What they are saying is that no one really knows what level of alcohol consumption is completely safe and pregnant women should therefore limit drinking to moderate levels," Dr Watson said.

## GUIDELINES

### WHAT THE GUIDELINES SAY:

● **HARMFUL EFFECTS:** "Alcohol is known to have teratogenic effects. Drinking alcohol while pregnant increases the risk of problems in foetal development but the level of drinking which causes significant foetal problems is not known."

● **NH&MRC (National Health and Medical Research Council) GUIDELINE 11:**

"Women who are pregnant or might soon become pregnant..."

11.1 may consider not drinking at all.

11.2 most importantly, should never become intoxicated.

11.3 if they choose to drink, over a week, should have less than seven standard drinks, AND, on any one day, no more than two standard drinks (spread over at least two hours).

11.4 should note that the risk is highest in the earlier stages of pregnancy, including the time from conception to the first missed period."

"I would recommend to a patient: if you do drink just have half a glass occasionally."

Dr Watson said the critical issue was community understanding of a "standard drink".

A standard drink is defined as 10g of alcohol.

For instance a 285ml glass of full-strength beer equates to 1.1 standard drinks, one nip of spirits (30ml) is one standard drink and an average glass of wine (150ml) is the equivalent of 1.5 standard drinks.

★ "The key message is that everyone should watch their alcohol level carefully, particularly women trying to get pregnant," Dr Watson said.

The foetus is most susceptible to damage from alcohol in the first three weeks between conception and the first missed period.

Launceston's Pregnant

Young Parents Support coordinator Raelene Ikin said she would advise clients that no level of alcohol consumption is recommended as a safe level.

National Council of Women Launceston branch president Mollie Campbell-Smith was stunned by the announcement.

Foetal alcohol syndrome has been one of the issues of concern for the council.

★ The branch presented a submission, prepared by Mrs Campbell-Smith and Yvonne Tilley, to the Federal Government recommending warning labelling on alcohol containers and in places where alcohol is served.

Such labelling is compulsory in the US.

The submission was rejected on three occasions.

Studies have shown that alcohol beverage warning

labels have increased awareness of the risks involved with alcohol consumption during pregnancy.

Mrs Tilley believes the Government is pandering to the powerful alcohol industry lobby.

Epidemiologist and director of the Foetal Alcohol Syndrome Centre at the University of Dakota, Dr Larry Burd estimates there are about 10 cases in every 1000 live births in the US affected by FAS and FASD.

★ Ms Russell says that given Australia has a higher alcohol consumption rate than the US, the incidence here would be at least equivalent.

A 2002 Australian Institute of Health and Welfare report showed that Australians annually consume on average 7.8 litres of absolute alcohol per person compared to 6.6 litres a person in Canada and 6.7 litres in the US.

In 1998 the Institute estimated that 81 per cent of Australian women drank alcohol during their pregnancy.

Ms Russell estimates the cost of FAS and FASD at \$500,000 for each affected individual over their lifetime.

"While other countries recommend abstinence, here we're like an emu with its head in the sand," she said.

A spokeswoman for the Ministerial Council on Drug Strategy said the guidelines were under review and would be updated in late 2007.

**HAVE YOUR SAY:** Write a letter to The Sunday Examiner at PO Box 99, Launceston 7250, or e-mail [sunday@examiner.com.au](mailto:sunday@examiner.com.au).



★ **Baby:** An estimated 81 per cent of Australian women drink alcohol during pregnancy.

weak  
→

18th January 1999

## FOETAL ALCOHOL SYNDROME AND FOETAL ALCOHOL EFFECTS

✓ Foetal Alcohol Syndrome is caused by women drinking alcohol when pregnant.

"Foetal Alcohol Syndrome is the greatest cause of mental retardation and birth defects in the Western World. You cannot treat the effects of alcohol on the unborn, the damage caused by alcohol is permanent. The consumption of alcohol is dropping, but its use is increasing in the young, particularly the young women".

(Dr.Lipson, Senior Physician, Dept Genetics, Children's Hospital Campberdown N.S.W.)

✗ At New Zealand's recent conference on "THE PREVENTABLE TRAGEDY OF FOETAL ALCOHOL SYNDROME" held in Hamilton on April 2nd 1998, visiting United States expert Professor Ann Streissguth said,

✗ "THERE SHOULD BE WARNING SIGNS WHEREVER ALCOHOL IS SOLD AND ON LIQUOR BOTTLES"

✗ Professor Streissguth called the Foetal Alcohol Syndrome 'A SILENT CRISIS THAT WAS ROBBING CHILDREN OF THEIR POTENTIAL AND CREATING UNTOLD PROBLEMS'.

✗ Over 2000 scientific articles have appeared in medical literature since 1973.

✗ "Classically, the foetal alcohol syndrome is the presence of post natal growth deficiency, a pattern of facial anomalies that include short palpebral fissure, midface hypoplasia, a long smooth philtrum and central nervous system manifestations, including microcephaly, mental deficiency, spasticity, seizures and squint. The incidence of birth defects is high, particularly congenital heart disease and cleft palate"

✗ (Medical Journal of Aust. Vol 161)

"Foetal Alcohol Syndrome is the commonest preventable cause of mental handicap and results in prenatal growth retardation, central nervous system damage, poor muscle tone and motor co-ordination, cranio facial abnormalities, skeletal abnormalities and defects of the major organs"

✗ (Dr.Lipson, Dept.Genetics, Children's Hospital, Campberdown).

"When some, but not all of these abnormalities are found and pre natal alcohol use is a possible cause, the term Foetal Alcohol Effects FAE is used.

FAS AND FAE ARE LIFE LONG DISORDERS"



(Ashley 1994 -taken from Statement Terminology Canadian Centre on Substance Abuse).

- "Foetal Alcohol Effects were not always obvious at birth and could not always be diagnosed for some years until the child is older".

- (Dr. Paul Lancaster, Aust. Institute of Health & Welfare 1996)

- "Scientists warn that alcohol wreaks it's damage on the foetus by entering the foetal circulation. Because the foetus lacks an enzyme known as alcohol dehydrogenase, which is responsible for metabolising alcohol, the level builds up in the foetus, particularly the brain and causes havoc".

- "The severity and extent of the defects depend, not only on the amount of alcohol imbibed, but also on the period of gestation when drinking occurred".

- ("The Mind" by Richard Restak MD)

- "Of particular importance is the evidence of damage at a very early embryonic stage corresponding to the third week of human pregnancy, before many women are aware they are pregnant".

- (Medical Journal of Australia 1994)

Dr. Maita Aronson of Sweden surveyed babies with FAS and noted "Our favourite drug alcohol can devastate the developing brain". In 1979 Dr. Aronson carried out a successful PUBLIC INFORMATION CAMPAIGN in Gotenborg over several years and the number of FAS BABIES DROPPED DRAMATICALLY.

- Dr. Ernest Abel in his book "FAS and FAS Effects" says, "In adolescence, school becomes increasingly difficult, compounded by poor social judgement and lack of impulse control. FAS youth are lonely, having few friends. They experience problems in areas of self direction, decision making, goal attainment and independence. Very few attain independence as adults".

- "Mothers may not be 'alcoholics' in the stereotypical sense but usually have abused alcohol during at least part of the pregnancy. Recent reports have shown cognitive and behavioural deficits in children born to "social drinkers".

- The formal diagnosis of FAS AND FAE is difficult, only a small proportion of affected mothers and babies are accounted for in official statistics".  
(Professor Ann Streissguth et al 1990)

- "Findings announced at a meeting of alcohol researchers are revealing subtle alcohol induced changes in foetal neurons that could lead to later mental defects.

Even moderate drinking can cause molecular changes in the foetal

brain that affects its ability to learn and remember as an adult.

We continue to be amazed at the changes we are finding at these low levels of alcohol exposure.

The research picture reinforces the public policy message that abstention is the best policy for pregnant women".

(Dr. David Savage, University of New Mexico, Research Society on Alcoholism and International Society for Biomedical Research on Alcoholism Joint Scientific Meeting Washington D.C.)

"19% of women drink at hazardous levels and the percentage is rising".

(Dr. Jan Copeland, National Drug & Alcohol Research Centre).

"The cost of treating one person with FAS (this cost is associated mostly with mental retardation) has been estimated at \$US. 1.4 million" (Striessguth AP Fetal Alcohol Syndrome Early and Long Term Consequences)

#### ✓ REQUEST FOR WARNING LABELS

✓ Warning labels on alcoholic containers are used elsewhere.

The number of children affected by F.A.S. have been greatly reduced in countries which require a warning label to be affixed to alcohol containers for example:-

People in the United States are "informed" with signs in places which sell and serve alcohol and also with warning notices on alcoholic beverages.

The mandatory sign in the U.S.A. states:-

#### DRINKING ALCOHOLIC BEVERAGES DURING PREGNANCY CAN CAUSE BIRTH DEFECTS

It is a requirement by the United States Government that alcohol manufactured in Launceston, Tasmania and exported to the United States is labelled with the warning:-

"According to the Surgeon General  
Women should not drink alcoholic  
beverages during pregnancy because  
of the risks of birth defects"

✱ It is ironic that Australian women are left uninformed.!

#### WARNINGS ON OTHER PRODUCTS

There has apparently been little opposition to other warnings to pregnant mothers. People are informed on the sad consequences of contracting German Measles if pregnant. To prevent this girls

are immunised while at school.

People are informed of the danger to the foetus of smoking when pregnant.

Many vitamin tablet containers, also cod liver oil bottles carry a warning label for pregnant women.

However, in Australia there is NO PUBLIC INFORMATION, NO WARNING LABELS ON ALCOHOLIC BEVERAGES informing people of the possible risk of birth defects to their baby if drinking alcohol when pregnant.

#### REQUEST FOR WARNING LABELS IN AUSTRALIA

Such requests for labelling in Australia, important though they are, have been ignored for example:-

Concerned with this problem, in 1996 the National Council of Women of Australia passed a resolution requesting the Minister for Health:

- a. That a WARNING NOTICE be printed on all bottles, casks and cans containing alcoholic beverages, drawing attention to the permanent birth defects resulting from the consumption of alcohol by pregnant women. And that such warning also be displayed in places where alcohol is sold or served and in doctor's surgeries and women's centres.
- b. That education and health care professionals be urged to include in the curricula and advise the general population, that alcohol consumption by pregnant women can adversely affect foetal development.


Unfortunately the National Council of Women Australia were persuaded to withdraw its application for labelling by the Australia New Zealand Food Authority, after being promised a "holistic" review on drinking behaviour which was irrelevant to the specific request by the NCWA, the matter proceeded no further.

~~Four~~

~~Two~~ YEARS HAVE ELAPSED AND THE PUBLIC ARE STILL UNINFORMED.

This is a request to educate the future parents and protect children of Australia. Protection for the unborn who may never reach their full potential. A request to resolve a major problem facing future Australians, because their Mothers were UNINFORMED THAT DRINKING ALCOHOL WHEN PREGNANT CAN CAUSE BIRTH DEFECTS.

Yvonne G. Tilley  
Advisor  
NCW Launceston



Resolution from Yvonne Tilley, Nat. Adviser Youth.

*The NCWA URGES THE COMMONWEALTH GOVERNMENT TO  
SUBJECT ALCOHOL TO THE SAME RESTRICTIONS AS ARE  
REQUIRED FOR THE ADVERTISING OF TOBACCO PRODUCTS*

Rationale

Whilst tobacco is acknowledged as the drug which causes the greatest number of health problems, its damaging effects are confined to the user and to a small extent his/her associates.

Alcohol on the other hand not only affects the user and his/her associates, but also causes the widest range of traumatic accidents and incidents to people in every walk of life.

For example: Alcohol in Australia "Issues & Strategies" 2001 to 2003/4 reveals that:

- \* It is the number one cause of deaths by accident,
- \* One third of all road accident deaths.
- \* (Even the oft touted driving with a blood alcohol level of .05 to ensure safe driving is wrong.. Such persons are at five times more risk of crashing their cars than those without alcohol in their blood stream.)
- \* 10% of Industrial Machine Accidents
- \* It is a major contributor to death or injury through: Fires 44%, Falls 34%, Drownings 32% Assaults 50% Child Abuse 16%, 42% of Pedestrian Deaths. 12% of Suicides
- \* 70-80 percent of night time assaults and domestic violence involve consumption of alcohol.
- \* Alcohol is a causal factor of high blood pressure, haemorrhagic stroke and heart failure.
- \* Alcohol has a role in causing cancers of the lips, mouth, throat, larynx and oesophagus.
- \* Cancers of the liver, bowel, stomach and pancreas are clearly associated with alcohol.
- \* In a recent study one alcoholic drink per day resulted in an 11 percent increase in breast cancer of the participants..

2.

\* (There is therefore clear evidence to show that alcohol is associated with increased risks of cancer overall).

\* When a pregnant woman drinks, the alcohol in her blood stream directly enters the brain of her unborn child, foetal death, congenital malformation, growth retardation and behavioural deficits may be the result.

Alcohol is proved to be harmful to persons in every age group, even the unborn.

Alcohol is therefore overwhelmingly proved to have much more wide ranging disadvantages than tobacco and therefore should be subject to the same control.

Yvonne G. Tilley  
Nat. Adviser Youth

30<sup>th</sup> November 2001



References: Alcohol in Australia 'Issues and Strategies' page 51, 11, 13, 9, 14  
Australian Alcohol Guidelines Oct. 2001 page 77 7-66 32 7-71 72-74

As attached —

- > (n) Foetal alcohol syndrome is a very large threat to global health and to the brain of unborn children, leading to mental deficiencies and consequent impairment for life, often years after the initial ingestion of alcohol by the mother.
- > (o) Alcohol is the biggest single cause of the teratogens which cause FAS and similar brain damage.
- > (p) One third of the most popularly prescribed medications are inimical to being used in combination with alcohol, which, if used together produce a much greater consequent risk to health and well being.
- > (q) Drug alcohol is both a cause and/or catalyst to many assaults and bashings which can occur not only around licenced premises but in the home, to the danger of spouses and family members.
- > (r) Andrew Bolt, Herald/Sun writer indicates that in the two states of Victoria and New South Wales alone, a total of 50,000 bouncers are employed

He poses the rhetorical question – "Why do they need so many bouncers?"  
PADD comment – It speaks volumes, albeit unspoken about what alcohol really is.

"Let's first ask why Victoria and New South Wales between them need 50,000 licensed crowd controllers just to protect drinkers, dancers, spectators and even teens, having a party.

Yes, 50,000 – which seems we have exactly as many bouncers in just two states as we do full-time military personnel in the entire Australian Defence Forces.

But let's ask how we went so wrong that we need this army of bouncers at all. " ?

- > (s) Alcohol is a cause or catalyst for depression and suicide. For every drug – induced action or "high" there is a reaction or "low", resulting often in many diverse adverse effects.
- (t) It is also responsible for many drownings and boating tragedies.
- > (u) There is much public ignorance about alcohol being a drug and therein lies one of its greatest dangers.
- > (v) Exponents for alcohol claim that it saves lives through vaunted health benefits. Evidence from Professor Shafer, an international expert, who has specialised in the question of whether alcohol protects against heart attacks, claims the methodology for the study to be flawed.
- > (w) The scandal of alcohol advertising being beamed at young people, which includes alcoholic beverages disguised in packaging with bottles and flavours designed to appeal to under age children, cries out for reform because alcohol advertising is governed using a process of "Self Regulation" by members of the alcohol industry itself.
- > (x) Alcohol promotion of major sporting event advertising presents a vastly unbalanced and misleading picture of what alcohol does, linking itself by association with sport, when in fact, as a drug beverage of addiction it is the antithesis of sporting prowess.

- > (y) In the case of an alcoholised mother who then breast feeds her baby, the baby acquires the mother's blood alcohol level through transmission via the mother's breast milk.
- > (z) Studies have shown that the Australian public is clearly in favour of health warning labels on containers carrying beverage alcohol. Also in accord with this proposition are the governments of countries such as France, Canada and America, so why does Australia not follow suit in the interests of the health and safety of the whole Australian population?

> In summary, the sad fact is that in any areas where crowds gather and alcohol is added to the equation by its consumption within the group, such as night clubs, sporting fixtures, beaches, roadways, etc. the risk factors increase and negative results ensue. PADD's slogan "We're fighting to save lives" has appeared on its notepaper over many years. PADD believes in harm prevention – before any incident or accident occurs, by wide promulgation of the facts we have listed and education of each generation using facts which the advertisers don't tell the public.

\*\*\*\*\*

> We offer the items below as proof that the limitation of alcohol outlets and hours of drinking help avoid catastrophes. *"Prevention is better than cure".*

## Facts and Figures ADCA 2004

### Prevention works and saves lives:

- > • It has been estimated that **in the first six months** of the National Tobacco Campaign in 1997 it **prevented 922 premature deaths** and achieved an additional 3338-person years up to the age of 75 (Commonwealth Department of Health and Aged Care 2000).
- > • An elevation of the impact of the first four years of the Northern Territory Living with Alcohol Program (1992-93 to 1995-96) identified a 22% reduction in per capita consumption over this period, reductions in hazardous drinking patterns and significant reductions in alcohol related morbidity and mortality. The program was estimated to have **saved 129 lives** and **prevented** over 2100 alcohol related hospital admissions during this time (National Drug Research Institute 2000).

### > Prevention is cost effective:

- > • The National Tobacco Campaign is estimated to have averted **\$24 million** in health expenditure in its first six months of operation (Commonwealth Department Health and Aged care 2000).
- > • The Living with Alcohol Program in the Northern Territory saved **\$124 million** in health care costs and lost productivity (National Drug Research Institute 2000).
- > • **For every dollar invested in prevention** communities can **save** between \$4 - \$10 in the cost of alcohol and other drug treatment (National Institute on Drug Abuse 2003 & Spoth et al. 2002). The evidence indicates that comprehensive drug abuse prevention programs in particular are highly cost beneficial and cost effective (Pentz 1998).