

# **FACT SHEET FOUR**

## **FOETAL ALCOHOL SYNDROME**

To obtain a positive diagnosis for Foetal Alcohol Syndrome (FAS) you need:

A positive confirmation of a history of maternal alcohol abuse

On examination of the child you need :

1. Prenatal or postnatal growth retardation - height and weight below the 10th percentile for age or gestational age)
2. Central Nervous System (CNS) dysfunction - any neurological abnormality, developmental delay or intellectual impairment
3. Characteristic cranio-facial abnormalities including at least two of the following

Microencephaly - head circumference below the 3rd percentile

Microphthalmia or short palpebral fissures

Poorly developed filtrum, thin upper lip and flattening of the maxillary area

### **FOETAL ALCOHOL EFFECTS**

According to the research society on alcoholism, a diagnosis of Foetal Alcohol Effects (FAE) is used when a child shows two of the criteria 1-3.

### **OTHER DEFECTS**

Other effects are sometimes seen such as joint anomalies, altered palmer crease patterns, cleft palate, strabismus, minor ear anomalies, internal organ anomalies, hernia, neurological dysfunctions, muscular hypotonia, cerebral convulsions, renal anomalies, cardiac defects, psychomotor developmental delay, hyperactivity, cerebral palsy, ataxia and tremor.

Longitudinal studies suggest that minor malfunctions and anomalies tend to improve with time, but severely affected children remain this way. Growth and speed of development tends to be slower and small brain size persists as does affects on intelligence. Boys appear to be more severely affected than girls.

### **INVISIBLE EFFECTS**

Dr Ann Streissgath, leading US researcher believes FAS and FAE are only the tip of the iceberg and she maintains that there are many children who exhibit no facial abnormalities but have more subtle damage.

She studied 500 women who either had two drinks per day or 'binged' occasionally (up to five drinks on one occasion) during pregnancy and found or all of the following:

**At Birth** - lighter in weight, more jittery and more tremulous than babies whose mothers had been completely abstinent. They exhibited difficulties with habituation, took longer to suck, had a weaker suck, disrupted sleep patterns, a level of arousal, unusual body orientation, abnormal reflexes, hypotonia and excessive mouthing.

**At 8 months** - disrupted sleep, poor balance and motor control, longer response times, reduced attention, visual recognition and memory, slower mental development and reduced verbal comprehension.

**At 7 years** - learning problems, lack of classroom co-operation, lack of sustained attention, poor retention of

Dr Streissgath's research suggests that two drinks a day equals approximately seven points detriment in IQ scores in 7 year olds.

Maternal 'social' drinking seemed to result in the offspring having similar but less severe consequences than those born with FAS, indicating in both cases the clear occurrence of permanent and irreversible alcohol-induced CNS damage during critical stages in foetal development.

Other factors associated with alcohol consumption may indirectly affect the foetus:

- Reduced maternal appetite
- Interference in absorbance of important nutrients (> low Zinc)
- Folic acid

## **PREVALENCE**

Studies suggest an incidence of between 1:100 to 1:3000 live births for FAS and three times this number for FAE. In terms of general Alcohol-Related Birth Defects (ARBD's) there is no data, some experts deny the existence of alcohol-related damage altogether.

The picture is complicated because many midwives and gynaecologists are not skilled in diagnosis in this area, there is a tendency in the US for ARBD's to be a 'bucket diagnosis', applied to any defect of unknown origin. In the UK there is a tendency for under-reporting because of a fear, on the part of professionals, of disadvantaging the child by labelling it and there is the mistaken belief that there is nothing anyone can do to help anyway.

However, although the physiological and neurological damage is permanent, an understanding of the effects of the damage may help educationalists to devise appropriate learning techniques and environments. For example, where there is hyperactivity and poor attention, teachers can compensate by scheduling short-span activities and not over-sanctioning energetic behaviours.

Where there is hypersensitivity to sensory stimuli a child may hit someone who brushes by them, experiencing the 'touch' as more of a blow. Teachers are able to discuss

experiences feelings and intentions if they are already alert to these tendencies. They can arrange to talk in quiet voices all the time to avoid startling or over-exciting affected children.

Environmental and cultural factors obviously bear on patterns of drinking, what is certain is that in the UK there has been a large increase in recent years of the average alcohol consumption of adult women. OPCS data tell us that 14% of women are regularly drinking in excess of 14 units of alcohol per week, whilst the most liberal estimates of what is 'safe' for the foetus allow no more than 10 units per week. It is likely that 14% of women are drinking at or above this level. Also, younger women, of childbearing age, drink substantially more than older women and added to this is the startling information that approximately only 50% of pregnancies are planned. Women may therefore continue to drink at their normal level several weeks into the pregnancy before they are aware of their condition and it is in these very early weeks when the CNS is developing and the foetus is more susceptible to alcohol's effects.