

CF Guidelines - Pregnancy

Pregnancy guidelines for women with CF:

Women with CF, who are planning to become pregnant, should discuss their intention with the CF team. Most women with CF become pregnant without any difficulty. Large studies have shown that statistically pregnancy is safe for most women with CF, who have good lung function and weight.

The following points should be considered:

- Pregnancy should be planned well in advance.
- Counsel individually as to suitability of pregnancy.
- Partner to be screened for CF (If the partner is a carrier, there will be a 1:2 chance of baby having CF. See antenatal/pre-implantation screening guidelines.)
- Lung function as a guide, women should be counselled that the risks of pregnancy increases as FEV1 falls below 60% predicted. (This seems to be the general consensus for a worse prognosis, as lung function is the most significant predictor of outcome. Precious lung function may be lost during pregnancy and although often regained post partum, it can be permanently lost. It is difficult to predict individual outcomes, as successful pregnancies have been known where pre-conceptual lung function has been less than 40% predicted, remaining stable throughout pregnancy.)
- Nutritional assessment by CF dietician (Low pre-pregnancy weight with a BMI of less than 18kg/m² has been associated with poor pregnancy outcome. (Edenborough et al 2000) Whilst women who are well nourished have been seen to have better outcomes. (Gillet et al 2002) General nutritional advice should also be provided including information on folic acid supplementation, food safety and alcohol intake. Woman with CF wishing to become pregnant should have serum levels of vitamins A, D & E measured and reviewed to ensure they are within normal levels. Retinol is teratogenic and a relationship between high vitamin A intakes during pregnancy and birth defects has been suggested. Women who are or may become pregnant are advised to avoid supplements containing vitamin A unless advised by a doctor. (Chief Medical Officer 1990) In women with CF serum levels of vitamin A should be measured at the beginning of pregnancy. If levels are normal or low it appears reasonable to continue supplementation at a dose of less than 10,000IU/day. (CF Trust 2002) Requirements for vitamin D are increased during pregnancy and lactation. It is recommended that all pregnant and breastfeeding women take a vitamin D of 10mcg/day. (DOH 1995) Women with CF may require additional supplementation of 10-20mcg (400-800IU) during pregnancy. (CF Trust 2002)
- All prescribed treatment needs to be checked for safety in pregnancy.
- Regular monitoring of weight gain and nutritional status during pregnancy. An increase of 200kcal per day through out the last trimester is required for normal weight gain in pregnancy. (DOH 1991) Weight gain has been reported to be significantly less in women with CF compared to that of healthy women. (Edenborough et al 1995, Frangolias et al 1997, Hardin et al 2005) Weight gain may be compromised by problems such as nausea, vomiting, reflux and constipation as well periods of poor appetite during chest exacerbations, admissions to hospital or if lung function deteriorates. Guidance should be provided on ways to alleviate problems and the use of nutritional supplementation either orally or enterally may be required.
- Pregnancy has a major impact on glucose tolerance. Women with CF have a high risk of developing gestational diabetes and early diagnosis and treatment

can improve maternal nutritional outcomes (Hardin et al 2005) Poor glucose control throughout pregnancy has been associated with increased risks to both mother and foetus. Women of unknown glycaemic status wanting to become pregnant should have a glucose tolerance test prior to conception to determine their glycaemic status. (CF Trust 2004) Women with established diabetes or who have impaired glucose tolerance are likely to require input from the Specialist Diabetes Team. Women with normal glucose tolerance should have a formal glucose tolerance test carried out every trimester until week 30. (CF Trust 2004)

- Close monitoring by CF team and obstetrician familiar with problems specific to women with CF. (CF team and obstetrician to work closely to optimise care, including delivery time. CF clinic appointments should be flexible and coincide with obstetric appointments, to save on traveling to separate appointments.)
- Several courses of intravenous antibiotics may be required during pregnancy. (There may be a risk/benefit issue.) Teratogenicity must be considered.
- During, and after pregnancy, women with CF need greater medical care to maintain their health; and they should be counseled about this.

Preconceptional dietetic assessment to include:

- Weight & Height (including weight history).
- Body mass index (BMI).
- Diet history including a full computerised assessment from a 3 day food diary.
- Review of pancreatic enzyme therapy to ensure gastrointestinal symptoms are controlled and malabsorption minimised.
- Measurement of plasma vitamin A, D & E and review of vitamin therapy.
- Assess iron and folate status.
- Advice on folic acid supplementation and folate rich foods (400mcg until 12th week NB: 5mg to be prescribed for women with diabetes).
- Review of diabetic status and control.
- Food safety.
- Advise women to avoid alcohol. If they do choose drink to limit it to no more than 1 to 2 units once or twice a week.
- Advise them to limit caffeine intake to no more than 300mg per day.

References:

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