



Pregnancy

One of the most important questions for women with cystic fibrosis (CF) is whether pregnancy will have a detrimental effect on their long-term health. With good nutritional management, careful monitoring of lung function, well controlled blood sugars and working closely with both the CF care team and obstetric team, many women with CF are able to carry a child without significantly impacting their long-term health. It is essential to discuss family planning ambitions with the CF team.

There are of course unique demands that pregnancy places on the body, some of which can have health implications for women with CF. For this reason, pregnancies should be planned for a time when the woman is in the best health possible to ensure the most successful outcome.

As part of planning pregnancy, it may be important for some to know the chances of having a child with CF. <u>Genetic testing</u> for your partner can be discussed with your CF team.

Am I Healthy Enough for Pregnancy?

Generally, there are four main factors that help determine how well a woman with CF will handle pregnancy. These factors are:

Lung Function

With a lower FEV1, the risk of complications may be higher. According to experts, lung function is the most important factor that will affect you and your baby's health after delivery.

A higher caesarean section rate and lower infant birthweight has been associated with poor lung function preconception.



Some studies have shown that infection with Burkholderia cepacia (B. cepacia) can lead to more complications during pregnancy. If you have B. cepacia and are interested in becoming pregnant, discuss the possible implications for both your and your baby's health with your CF care team.

Nutrition

Ideally, your nutritional status should be good enough to support both you and your baby throughout the pregnancy, including potential morning sickness or changes in appetite. Having a Body Mass Index (BMI) of at least 22 (kg/m2) is a must. Lower BMI is often associated with poor foetal growth and premature delivery.

Cystic Fibrosis Related Diabetes (CFRD)

<u>CFRD</u> increases the risk of problems during pregnancy. Monitoring and controlling blood glucose prior to falling pregnant is very important. Your insulin requirements may change during pregnancy.

Cirrhosis (liver disease)

Cirrhosis can be a potential complication in pregnancy for women with CF. Women who have liver disease should discuss the

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implications of pregnancy with the CF team.

Potential Complications During Pregnancy

Preterm Delivery

The most common complication of pregnancy with CF is preterm or premature delivery, which seems to be associated with low pre-pregnancy lung function. Poor lung function is also associated with lower birth weight.

Gestational Diabetes

Pregnant women with CF have been found to have a higher risk of gestational diabetes because many already have impaired glucose tolerance. For this reason, your care team should consistently screen for diabetes throughout your pregnancy.

Nutritional Deficiencies

Your nutritional demands will change during pregnancy and put you at risk of inadequate weight gain or even weight loss. Most women with CF will need to increase their caloric intake, drink supplements and focus on maintaining and gaining weight while pregnant. It is important to pay close attention to nutritional status and work closely with a CF dietitian throughout pregnancy.

Constipation

Although it is common for all women to experience constipation issues during pregnancy, having CF puts you at a higher risk. To prevent constipation, pregnant women with CF should drink more water, add fibre to their diet and eat more fruits and vegetables. The care team may also recommend the use of stool softeners or laxatives.

Exacerbations

Pregnant women with CF may experience more exacerbations, so it is important to continue your CF respiratory therapies throughout pregnancy to stay as healthy as possible. Your CF care team and obstetrician will want to discuss whether any of your treatments should be stopped or changed during pregnancy, especially if you require antibiotics.

Vitamin A (retinol) Toxicity

Because high levels of vitamin A, especially within the first three months, can be associated with developmental issues for your baby, it is important that your care team carefully monitor your vitamin A levels. If you are taking vitamin A supplements, your obstetrician will likely have you stop taking them during your pregnancy. However, it is important that you do not stop taking your other CFrelated vitamins without discussing it with your care team and obstetrician first.

Hypertension

According to some studies, pregnant women with CF have a higher risk of hypertension than those without CF. For this reason, your care team and obstetrician should closely monitor your blood pressure both before and during your pregnancy.

CFTR Modulators During Pregnancy

As <u>CFTR modulators</u> become more common, consideration needs to be given to use during pregnancy and breastfeeding.

In 2020, a worldwide survey of senior CF clinicians reported CFTR modulators were well tolerated before and during pregnancy and lactation, however, longerterm follow-up is required to exclude future adverse effects. If you are taking CFTR modulator therapy and planning pregnancy, discuss your treatment options with your CF team.

Useful Resources

- <u>CFWA Reproductive Factsheets</u>
- <u>CF Carrier Screening Program (CF</u> <u>Community Care)</u>
- <u>CFWA Fertility Stories</u>
- Health Eating and Weight Gain During
 Pregnancy (NEMO)

Last reviewed June 2020.

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