

## Patient Information regarding Cordocentesis (Sampling of Blood from the Umbilical Cord)

Last Name:

First Name:

Date of Birth:

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This information is meant as a supplement to the explanations given to you by your doctor prior to the planned **sampling of blood from the umbilical cord (cordocentesis)**. Please do not hesitate to ask your doctor about anything that seems unclear or is particularly important to you. Please indicate prior to the procedure, if you would like to receive more information about the procedure itself or about possible results and/or complications.

The sampling and testing of blood from the umbilical cord allows the examination of both the number and structure of the chromosomes (the carriers of the genetic code) in order to test for genetic disorders of the unborn child, in as much as these are detectable with modern technology. It can also be used to test for infections or for suspected severe fetal anemia, i.e. in the case of major blood group incompatibility between the mother and the baby. If necessary, it can also serve as a route for transfusing blood to the unborn child. The procedure is usually carried out in the second or third trimester of pregnancy.

You should carefully consider all the pros and cons of a cordocentesis before you decide to have this procedure done. It is a very personal decision, which you should make without undue outside influence. You are absolutely free to refuse this procedure, as there is always, especially with genetic disorders, the "right **not** to know".

**Method:** First, the exact position of the baby, placenta and amniotic fluid is determined by an ultrasound examination. Then, under continuous ultrasound control, a thin needle is introduced through the wall of the mother's belly into the umbilical cord and about 2-4cc (cubic centimeters/milliliters) of fetal blood is withdrawn and sent to the laboratory for evaluation. The procedure usually lasts only a few minutes and is generally done under local anesthesia.

**Risks and possible complications:** Even with perfect technique in about 1 to 3 out of a 100 diagnostic cordocentesis procedures there will be a miscarriage; either a death of the unborn child or a premature birth (after the 24<sup>th</sup> week of pregnancy). Occasionally there will be a slow leaking of amniotic fluid, which generally slows down and stops after a few days and the pregnancy continues normally. In very rare cases a drastically reduced amount of amniotic fluid can lead to an impairment of fetal lung or joint development.

**After the Procedure:** Occasionally there will be some abdominal discomfort due to contractions of the womb or some bleeding into the belly wall. If your blood type is Rh-negative, you will need an injection with antibodies against Rh-positive blood cells in order to prevent your body from producing these antibodies on its own, which could hurt the development of your baby.

**Result:** Examination of the chromosomes and genetic testing is very reliable, but does not guarantee a healthy baby. Rarely there are unexpected or difficult to interpret findings (i.e. with the sex chromosomes or with so called 'mosaics'), which might necessitate follow-up examinations. Unexpected or unfavorable results can be extremely taxing psychologically. We therefore offer you additional help by specially trained counselors. If a severe abnormality of the fetus is found, you may want to consider with your doctor, possibly after further thorough consultation with a specialist, whether you would like to continue the pregnancy or not.

**Costs:** If there is a medical indication for the procedure, i.e. with an increased risk of a chromosomal anomaly or with a suspicion of fetal malformation, your Swiss health insurance usually covers the costs of the cordocentesis and the necessary laboratory examinations.

**Your Questions:**

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**This document serves as proof of the genetic counseling and associated laboratory examinations required under Swiss GUMG art. 18 and the signed contract below indicates your agreement to the genetic testing. The counseling centers of the various cantons are available for further consultation under Swiss GUMG art. 15.**

**Informed Consent Discussion:**

Translator: \_\_\_\_\_

Proposed Procedure(s) :

\_\_\_\_\_

**Diagram:**

Notes by the physician regarding this informed consent discussion (such as the decision not to inform regarding certain risks including the reasons for doing so, and personal risk factors specific to this patient etc.).

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\_\_\_\_\_  
\_\_\_\_\_

Alternative treatment options:

\_\_\_\_\_  
\_\_\_\_\_

Date:

Time:

Duration of the Discussion:

\_\_\_\_\_

**Contract and Permission to Treat:**

Dr. | \_\_\_\_\_ had an extensive informed consent discussion with me.    I understand all the explanations presented to me and all my questions regarding the issues of interest to me were answered to my satisfaction.    I received a copy of the protocol of this discussion.    I have had sufficient time to consider my decision and agree to the proposed procedure and laboratory examinations.

Place, Date \_\_\_\_\_ Patient \_\_\_\_\_

The Text on the first page of this document was discussed with the patient in detail, all her questions were answered to her satisfaction and she received a copy of this informed consent discussion protocol.

Date, Time \_\_\_\_\_ Physician \_\_\_\_\_