

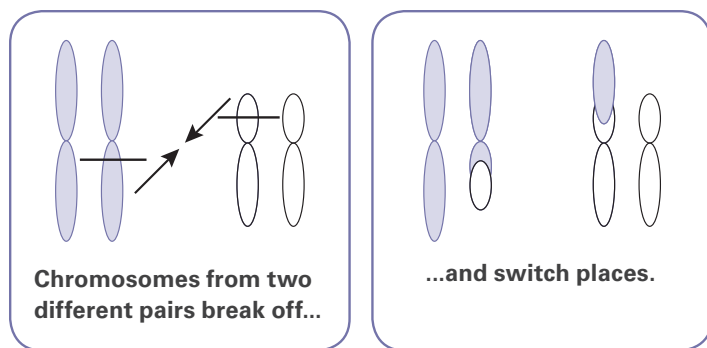
Possible Causes of Repeated Miscarriage

Approximately one in every five, or 20 percent, of all pregnancies ends in miscarriage. If you have experienced several pregnancy losses, you may be feeling a variety of emotions. Sadness, anger, and guilt are all common responses. You may also have many questions. Why did the miscarriages happen? Why us? Will it happen again? This flier was written to discuss some possible causes of repeated pregnancy loss and some potential tests that may be appropriate in your situation.

CHROMOSOME TESTING

For about five percent of couples that have had three or more miscarriages, the answer lies in the chromosomes. The chromosomes are the structures in the cells of our bodies that contain the genetic information, or genes. The chromosomes are inherited from our parents through the egg and sperm cells. There are 46 chromosomes in each cell that can be arranged into 23 pairs. One of each pair comes from the mother and one from the father.

Sometimes pieces of chromosomes from two separate pairs break off and switch places with one another as illustrated below.



Although the chromosome material is rearranged, all of the genes are still there. Therefore, the translocation is said to be balanced and does not cause mental or physical handicaps.

Carriers of balanced translocations are usually able to have healthy children, but some may have reproductive problems. This is because a person with a balanced translocation can make egg or sperm cells with too much of one chromosome and too little of the other. This can cause infertility,

miscarriage or the birth of a child with mental retardation and/or birth defects. A blood sample can be sent for chromosome testing. If one of the patients is found to carry a balanced translocation, the doctor or genetics counselor should be able to tell you the approximate risk for problems given your specific rearrangement and history. Prenatal diagnosis such as genetic amniocentesis is routinely offered to translocation carriers.

Corpus luteum deficiency

The corpus luteum is a cyst that forms on the ovary following ovulation. This cyst produces progesterone. Progesterone is a hormone that stimulates the lining of the uterus to support the pregnancy for the first 50 to 60 days after conception. Some women do not produce enough progesterone to support the pregnancy, resulting in miscarriage. Corpus luteum deficiency is found in about 20 percent of women with a history of three or more early pregnancy losses. An outpatient test called an endometrial biopsy, performed late in the menstrual cycle, can evaluate this possibility. If a luteal phase defect is documented, treatment with progesterone in future pregnancies may be helpful.

Structural abnormalities

An abnormally shaped uterus is another potential cause of early miscarriage. About 10-15 percent of women with repeated pregnancy losses are found to have a uterine abnormality. A hysterosalpingogram, in which dye is injected into the uterus and an X-ray performed, is one method of evaluating the structure of the uterus. Sometimes surgery can correct the abnormality and allow for successful pregnancies in the future.

Blood clotting

Finally, there are several conditions that can lead to abnormal clotting of the blood. A blood clot in the placenta can effectively cut off the blood supply to the fetus, resulting in miscarriage. Blood tests for several conditions that could lead to abnormal clotting may be performed.

For instance, about five to 10 percent of women who have had repeated early pregnancy losses are found to have antiphospholipid antibody syndrome. This is a disorder of the immune system. Affected patients produce antibodies to certain phospholipids in their blood, causing abnormal clotting. Treatment with medications that reduce blood clotting may be beneficial for these women. In addition to increasing the risk of miscarriage, abnormal blood clotting can also adversely affect the mother's health. Therefore, if one of these factors is found, careful monitoring may be recommended.

IN SUMMARY

There may be many different reasons for recurrent pregnancy loss. While this pamphlet doesn't cover all possibilities, it highlights the most common reasons for repeated miscarriage. Our physicians will be able to answer additional questions you may have, as well as discuss any test results. As you go through this difficult time, it is helpful to remember that many of the causes of repeated pregnancy loss can be treated, and in most cases, the couple is able to eventually achieve a successful pregnancy.



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