



FERTILITY FACT SHEET

San Ramon / Orinda / San Jose

Recurrent Pregnancy Loss

Recurrent pregnancy loss (RPL) is the loss of two or more consecutive pregnancies in the first or early second trimester of pregnancy (less than 20 weeks). Other terms for RPL include recurrent spontaneous abortion, miscarriage, or habitual abortion. Causes for RPL are difficult to determine with no more than 35% of couples having a definitive diagnosis. There are also many unproven hypotheses and poorly designed clinical studies which have resulted in several controversial treatments for RPL, many of them without proven benefit. The following is a contemporary approach to RPL based on the most recent literature.

Pregnancy loss occurs in about 25% of all clinically recognized pregnancies with a steady increase in this number as a woman ages. By 40 years old miscarriage rates in women increase to 35%.

RECOGNIZED CAUSES OF RECURRENT PREGNANCY LOSS

UTERINE ANATOMIC ABNORMALITIES:

Distortion of the uterine cavity is found in 10 to 15 % of women with RPL. The majority of these women have a septum in their uterine cavity, fibroids, or scar tissue (Asherman's Syndrome). The presence of a fibroids or polyps may also cause recurrent pregnancy loss.

Diagnosis: Saline Sonohysterogram, Hysteroscopy, or Hysterosalpingogram.

Treatment: Outpatient Hysteroscopic removal of abnormal tissue, polyps, or fibroids. In severe cases, use of a Gestational Carrier (surrogate) to carry a future pregnancy.

GENETIC ABNORMALITIES (IN PARENTS OR EMBRYOS):

In 2-4% of couples with RPL one partner will have a rearrangement of their chromosomal make up (balanced translocation).

Even when the parent's chromosomes are normal, the embryos can be abnormal. Studies testing the genetics of embryos in women with RPL have shown that more than 50% of embryos have an abnormal number of chromosomes. Some patients will have 100% abnormal embryos.

Diagnosis: Parental Karyotypes (a blood test) which measures chromosomes in both partners; PGS

Treatment: Preimplantation genetic screening (PGS) uses IVF and embryo biopsies to determine which embryos are normal and should be transferred.

Donor sperm or donor egg.

MALE FACTOR:

There are contradictory data regarding a causal effect between pregnancy loss and sperm DNA fragmentation.

Diagnosis: Parental Karyotype (blood test) which measures chromosomes. Sperm DNA testing is not routinely recommended.

Treatment: No definitive treatment has been proven. Anti-oxidants may be of some value. Donor Sperm.

ENDOCRINE:

Sub-optimal or low progesterone levels may cause RPL. Evaluation of hormonal abnormalities in the female partner, including the luteal phase of the cycle for suboptimal production of progesterone, may provide insight into a condition known as “Luteal Phase Deficiency”. Patients with Polycystic Ovary Disease are at increased risk for miscarriage, likely due to endocrine abnormalities, including elevated insulin.

Diagnosis: Short luteal phase duration, CD 2-3 FSH and Estradiol, Prolactin, Glucose, Insulin and TSH (thyroid stimulating hormone). Endometrial biopsy is generally not helpful.

Treatment: Supplementation of cycle with vaginal or injectable progesterone, or the use of Clomiphene. Correction of other hormonal or medical abnormalities as indicated.

DIMINISHED OVARIAN RESERVE:

Women are born with all the eggs they will ever have. As her eggs age, their quality declines. Consequently, the quality of resulting embryos is diminished which increases the chances of early pregnancy loss. In women with RPL this may be the first indication of a decline in the quality of their remaining eggs. There are simple, safe, and easily performed blood tests that can help give a sense of a woman’s ovarian reserve. An antral follicle count, cycle day 2 or 3 FSH with Estradiol blood level, and AMH all measure ovarian reserve and may also give a indication of the quality of the remaining egg within the ovaries.

Diagnosis: Day 2 or 3 FSH/Estradiol blood test, AMH, antral follicle count.

Treatment: Depending upon results of the above mentioned tests.
Clomiphene, Gonadotropins, IVF, or Egg Donation.

AUTOIMMUNE AND CLOTTING DISORDERS:

Five to 10% of women with RPL have a genetic or acquired (autoimmune) clotting disorder that may cause the losses. We frequently recommend testing for selected blood tests to rule-out these disorders

Diagnosis: Blood testing for anti-Phospholipid syndrome including anticardiolipin antibodies, Lupus Anticoagulant, and Anti Beta 2 Glycoprotein. Blood testing for Factor V Leiden Mutation, Homocysteine levels, Prothrombin Mutation, and Tissue-Plasminogen Activator Inhibitor are more controversial causes of RPL.

Treatment: Low dose Heparin therapy, Folate Supplementation, Low-Dose Aspirin (ASA).
No Proven value of IVIG (Intravenous Immunoglobulin), WBC immunizations, or other Immunologic Treatments at this time based on carefully run studies and meta-analyses.

ENVIRONMENTAL:

Smoking and alcohol increase miscarriage rates.

Low Body Weight and Obesity in the Female partner has been shown to increase miscarriage rates.

Caffeine in moderation (<300 mg/day) does not increase miscarriage rates.