



The Recurrent Pregnancy Loss Clinic

Welcome to the Recurrent Pregnancy Loss Clinic at BC Women's Hospital & Health Centre. We are here to help women and their partners who have experienced pregnancy loss.

The Recurrent Pregnancy Loss (RPL) Clinic consists of a team of health care professionals, including doctors, nurses, ultrasound technologists, and counselors. Medical students, resident doctors, and student technologists may also be involved in your care.

What is Recurrent Pregnancy Loss (RPL)?

Recurrent pregnancy loss is when a woman experiences 2 or more consecutive miscarriages (1 miscarriage after another). The miscarriage tissue is tested to identify the cause of the miscarriage.

Most pregnancy losses are the result of an abnormal number of chromosomes (our genetic material) in the embryo (fertilized egg) and are random events. Random miscarriages happen often (50 out of 100 pregnancies between 3 and 6 weeks of pregnancy will experience a miscarriage). Miscarriages may even occur before you know you are pregnant. Random miscarriages do not increase your risk of having a miscarriage in the next pregnancy.

Your chances of having a baby after a miscarriage are overall very good: 5 to 6 out of 10 women have successful subsequent pregnancies.

What can I expect when I come to the RPL Clinic?

Before your first visit

Before you can be seen in the clinic, you will need a referral from your primary care provider (e.g. doctor, midwife, or nurse practitioner) to the RPL Clinic. The RPL Clinic booking clerk will contact you to set up an appointment with one of our doctors.

Before your doctors' appointment, the nurse will review your medical history and pregnancy history. You will be asked about the dates and the details of all your past pregnancies, so you may wish to make notes before your visit with the nurse. Think of any significant illnesses you have had in the past and write some of the details down. All information is confidential (private).

Collecting this information before your first appointment allows us to focus your appointment on discussing your situation and answering your questions.

Your first visit

For your first appointment, please plan to spend 1.5 hours in the RPL Clinic. This includes time to register, see the doctor, book any follow-up visits and/or tests, and, in some cases, go to the laboratory to have blood tests done.

My notes:

My questions:

What tests are done to determine the cause of RPL?

Depending on your medical and pregnancy history, your doctor may suggest you try for another pregnancy without further testing, or that you and your partner have additional tests to identify the best way to support you during your next pregnancy. For between 5 to 7 out of every 10 couples with RPL, no clear cause for miscarriage is found. This is known as unexplained RPL.

1. Miscarriage tissue analysis

The miscarriage tissue is analyzed to determine if an abnormal number of chromosomes was the cause of the miscarriage.

At your first appointment with the RPL Clinic, you will be given a form and a container and gloves for collecting miscarriage tissue. Once collected, the container of tissue can be stored in the refrigerator (not freezer) until you are able to drop off the container and form at your nearest Emergency Department. Call the RPL Clinic to let us know that you have dropped off the container so that we can follow up on your results.

2. Hormonal testing

Uncontrolled diabetes or hypothyroidism (underactive thyroid gland) increase the risk of miscarriage. If you have diabetes or hypothyroidism, hormonal testing may be suggested. A sample of your blood will be taken and specific hormone levels (e.g. thyroid hormone, prolactin hormone) will be checked.

3. Genetic testing

Genetic testing determines if RPL was due to an inherited (passed from parent to child) genetic cause. For this test, a sample of blood will be taken from you and your partner, and

a chromosome analysis will be performed. If a chromosome abnormality is found, you and your partner may meet with a genetics specialist who will discuss the chromosome abnormality and provide you with information about how future pregnancies may be affected. An inherited genetic cause is found in less than 5 out of every 100 of couples with RPL.

4. Anatomical testing

An abnormality in the shape of the uterus (womb) can sometimes be found in women experiencing RPL (10 to 15 out of every 100 women with RPL have a uterine abnormality, compared to 5 out of every 100 of women who don't have RPL).

Not all uterine abnormalities cause RPL. Some types of uterine abnormalities that may cause RPL include:

- A septum (wall) in the uterus
- Scar tissue in the uterus (also known as Asherman's Syndrome)
- Uterine polyps or fibroids

There are 2 possible tests to assess the shape of your uterus:

1. **Hysteroscopy:** a thin, lighted camera (hysteroscope) is inserted into your uterus to examine the shape
2. **Hysterosalpingogram (HSG):** an x-ray test that takes a picture of your uterus after dye has been inserted.

Your doctor will explain these tests and discuss which test is best for you.

5. Antibody testing

Antibodies are substances that are made by your immune system to fight infection from bacteria and viruses. In some diseases, the immune system produces antibodies that mistakenly attack the body's own tissues and proteins. Antiphospholipid antibody syndrome (APAS) is one of these diseases. APAS causes blood clots to form in your body, including the developing placenta, which can lead to miscarriage.

An antibody test is when a sample of your blood is taken to determine if you have antibodies that may contribute to your miscarriages. Since these antibodies can be in your blood unrelated to miscarriage, your doctor will advise you if you need the test. Usually, it is done if you have had:

- 3 miscarriages after 6 weeks of pregnancy, or a single miscarriage after 10 weeks. If these antibodies are present, the test will be repeated in 6 to 12 weeks to see if they are still present. A positive antibody test is when the same antibody continues to be present on your blood sample that is repeated 6 to 12 weeks after the initial test.

6. Tests with no proven benefits for Recurrent Pregnancy Loss

There is no scientific evidence to support assessment of:

- Progesterone hormone level
- Endometrial (uterine lining) biopsy
- Inherited blood clotting abnormalities (Factor V Leiden, Prothrombin gene mutations, protein C, protein S and antithrombin deficiencies)
- Cultures for bacteria or viruses
- Insulin resistance
- Antinuclear antibodies
- Maternal anti-paternal antibodies
- Antibodies to infectious agents
- Embryotoxic factors
- Semen analysis

Once the tests are complete, you will be seen in the RPL Clinic for a follow-up visit. At this visit, your doctor will review your test results and discuss what treatments are available.

How is RPL treated?

The type of treatment depends on the cause of RPL:

1. **Hormonal** (e.g. hypothyroidism, diabetes): treated with medication
2. **Abnormality in the shape of the uterus:** many abnormalities can be repaired with minor surgery
3. **Genetic:** If one of the parents has a specific chromosome abnormality, in-vitro fertilization may be offered. In-vitro fertilization is the

process where an egg is fertilized with sperm outside of the body and then the fertilized egg (embryo) is transferred into the uterus. Testing for chromosomal abnormalities can be done before transferring the embryo to the uterus

4. **Antiphospholipid antibody syndrome:** if the same antibody is present in 2 antibody tests, medication may be beneficial during your next pregnancy

A few studies have reported a better chance of a successful next pregnancy with close monitoring (e.g. ultrasound) and support at a dedicated RPL Clinic.

Treatment with no proven benefits

These include white blood cell immunization and intravenous immunoglobulin (IVIG) therapy. Except for couples affected by a specific chromosome translocation, the scientific evidence does not support In Vitro Fertilization (IVF) with testing of the embryos for chromosome abnormalities (PGS or pre-implantation genetic screening) for the treatment of RPL. The studies show that the chance of having a baby (live-birth rate) is higher with support in a dedicated RPL centre (70%) than with IVF/PGS (15 to 32%).

What support is available?

We understand that RPL can be very stressful for you and your partner. We are available to answer all your questions and provide you with support. The RPL Clinic has counselors available if you would like additional support. Depending on your situation, we can also suggest other resources to provide support.

Please do not hesitate to ask any member of the RPL team if you wish to have additional support during this time.

How will I be followed during my next pregnancy?

We can offer close monitoring and support during your next pregnancy.

If you think you are pregnant, take a home pregnancy test (can be purchased at your local drug store). If your home pregnancy test is positive:

1. Call the RPL Clinic nurse at: 604-875-3628. She will ask you some questions regarding:
 - Your current health status
 - List of medications you are currently taking
 - The date of your last menstrual period

The RPL Clinic nurse will help schedule your blood tests, ultrasounds, and doctors' appointments.

2. Have a blood test to measure your pregnancy hormone levels (hCG). 1 week after your initial blood test, you will be asked to have a 2nd blood test to see if the pregnancy hormone is rising normally.
3. Have an ultrasound between 6 to 7 weeks of pregnancy (2 to 3 weeks **after** you missed your period).
4. You will see the RPL Clinic doctor to review your ultrasound results the same day. You will see the RPL doctor every 2 to 3 weeks until 12 weeks of pregnancy. After 12 weeks of pregnancy, your care will be transferred to your family doctor, midwife or obstetrician.

Where can I find reliable information?

For more information on miscarriages, please see the following websites and books:

1. Websites

- www.reproductivefacts.org
- www.asrm.org
- www.miscarriagesupport.org.nz
- www.miscarriageassociation.org.uk
- www.miscarriagehelp.com
- www.hopexchange.com
- www.silentgrief.com

2. Books

- Miscarriage: Women Sharing from the Heart by Marie Allen and Shelley Marks
- A Silent Sorrow: Pregnancy Loss – Guidance and Support for You and Your Family by Ingrid Kohn, Perry-Lynn Moffitt, and Isabelle Wilkins
- Surviving Miscarriage: You Are Not Alone by Stacy McLaughlin
- Miscarriage, Medicine and Miracles: Everything You Need to Know About Miscarriage by Bruce Young and Amy Zavatto

3. Support Groups / Workshops

- Mary Chiasson, Counsellor,
BC Women's Health Care Centre
4500 Oak Street
Vancouver, BC V6H 3N1
mary.chiasson@cw.bc.ca

4. Adoption

- Adoptive Families Association of BC:
<http://bcadoption.com>
- Family Services of Greater Vancouver
Adoption Services:
www.fsgv.ca/programpages/adoptionservices

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