



## PATIENT'S FACT SHEET

### Intrauterine Adhesions

Trauma to and/or infection of the uterine lining (endometrium) may damage the endometrial lining and may lead to partial or total destruction of the endometrium in severe cases. Intrauterine adhesions (scar tissue) can form between the inner walls of the uterus. Asherman's Syndrome is the term used to describe intrauterine adhesions.

**Causes:** The most common cause of intrauterine adhesions is trauma to the uterine cavity. This may occur following dilation and curettage (D&C), an outpatient surgical procedure during which the cervix is dilated and the tissue contents of the uterus are emptied. D&C may be performed so that the endometrial tissue can be examined microscopically and for pregnancy termination, excess uterine bleeding after childbirth, miscarriage, and other gynecological conditions. Less commonly, prolonged use of an intrauterine device (IUD), infections of the endometrium (endometritis), and surgical procedures involving the uterus (such as removal of fibroids) also may lead to the development of intrauterine adhesions.

**Symptoms:** Women with intrauterine adhesions may have no obvious problems. Many patients, however, may experience menstrual dysfunction in the form of absent, light, or infrequent menstruation. Also, they may be unable to achieve pregnancy or may experience recurrent miscarriages. Less commonly, pelvic pain or dysmenorrhea (painful menstrual periods) may be present if the adhesions block menstrual blood flow.

**Diagnosis:** An x-ray procedure known as a hysterosalpingogram (HSG) is one common method used to diagnose intrauterine adhesions. During an HSG, a radio-opaque solution is injected into the uterus and visualized by x-ray to reveal the inner shape of the uterus and determine if the fallopian tubes are open. The uterine cavity can also be visualized with transvaginal ultrasound if saline (or another fluid) is infused during the ultrasound (saline infusion sonohysterography [SHG] or hysterosonogram). All of these procedures require a small catheter to be placed through the cervix for the delivery of the fluid. These procedures do not require anesthesia, although non-steroidal anti-inflammatory medications (NSAIDs) may be able to decrease the

cramping that occurs during the procedure. Hysteroscopy can also be used to diagnose intrauterine adhesions. This is a procedure in which a thin, telescope-like instrument is inserted through the cervix to allow direct visualization of the uterine cavity. Hysteroscopy can be performed in the office without general anesthesia or may be done in the operating room with or without general anesthesia. Although HSG and SHG are useful screening tests, hysteroscopy is the most accurate method of evaluating intrauterine adhesions and also may be used for treatment.

**Treatment:** Surgical removal of intrauterine adhesions with hysteroscopic guidance generally is recommended; however, there are little data to show that this treatment reduces the chance of a future miscarriage. Sometimes laparoscopy is performed to visualize the uterine surface to guard against perforating (i.e. putting a hole in) the uterus while hysteroscopic lysis of extensive adhesions is carried out. Following removal of the adhesions, many surgeons recommend temporarily placing a device, such as a plastic catheter, inside the uterus in an effort to keep the walls of the uterus apart and to prevent adhesions from reforming. Hormonal treatment with estrogens and NSAIDs are frequently prescribed after surgery to lessen the chance of reformation of adhesions. In severe cases, more than one attempt at surgical removal of the adhesions may be necessary. Pregnancies that occur after hysteroscopic lysis of intrauterine adhesions are more likely to be complicated by preterm labor, third trimester bleeding, and/or abnormal attachment of the placenta to the uterine wall (placenta accreta).

**Reproductive Outcomes:** Reproductive outcomes appear to correlate with the type and extent of the adhesions. After treatment, patients with mild to moderate adhesions have full-term pregnancy rates of approximately 70% to 80%, and menstrual dysfunction is frequently alleviated. Alternatively, patients with severe adhesions or extensive destruction of the endometrial lining may have full-term pregnancy rates of only 20%- to 40% after treatment. Women with extensive damage to the endometrium unresponsive to conventional therapy by hysteroscopy may need to consider adoption or a gestational carrier to achieve a pregnancy.

*The American Society for Reproductive Medicine grants permission to photocopy this fact sheet and distribute it to patients.*