



10 Common Questions Answered Blocked Fallopian Tubes

1 What exactly is a Fallopian Tube?

The fallopian tubes are among the smallest organs in the female body. Charged with the task of capturing a one-celled egg and then providing the environment for its union with a single sperm, the fallopian tube is truly the place where life begins.

The structure and function of each fallopian tube is complex, almost beyond belief. As small as a strand of spaghetti, the inside of the tube is extremely delicate. The walls of the tube

are lined with thousands of delicate hair-like structures called cilia.

In fact, more than one person has noted that the internal walls of the fallopian tube appear to resemble a lush and supple coral bed, when viewed under an electron microscope.



2 How does a Fallopian Tube become blocked?

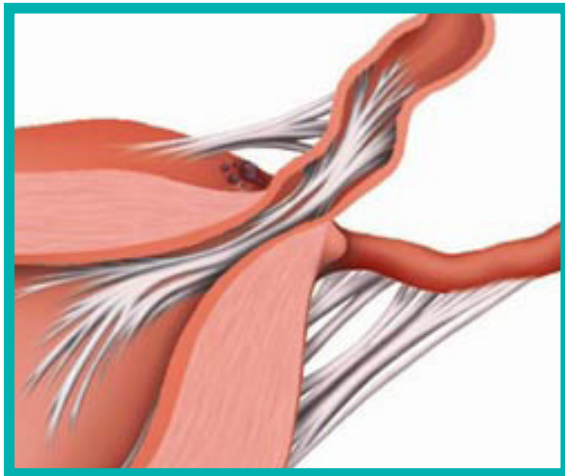
Due to the tiny size of the inside of the tube and the delicate garden like structure within, the fallopian tube is poorly prepared for the invasion of collagen cross-links that form as a response to inflammation or infection. As the body heals, and collagen lies down within the tube, it covers and adheres the cilia and the garden of support structures within the tube, blanketing them in a glue that constricts their movement and function. Continual adhesion formation can finally bind one side of the tube to the other, resulting in total tubal occlusion (blockage).

At the end of the fallopian tube, the delicate finger-like fimbriae are designed to grasp the single-celled egg as it emerges from the ovary each month. In appearance, the fimbriae are like the petals of the finest flower imaginable. These tiny but magnificent structures must be free floating in order to function properly. But after inflammation, infection, surgery, or injury in the pelvis, collagenous cross-links can form and bind the fimbriae together, creating a structure which is adhered by tiny collagenous glue-like adhesions. These cause the tube to lose its delicacy, mobility, and ability to grasp the egg. In severe cases, these cross-links can draw the fimbriae together into a blunt structure resembling a closed fist – a condition sometimes referred to as “clubbed fimbriae.”

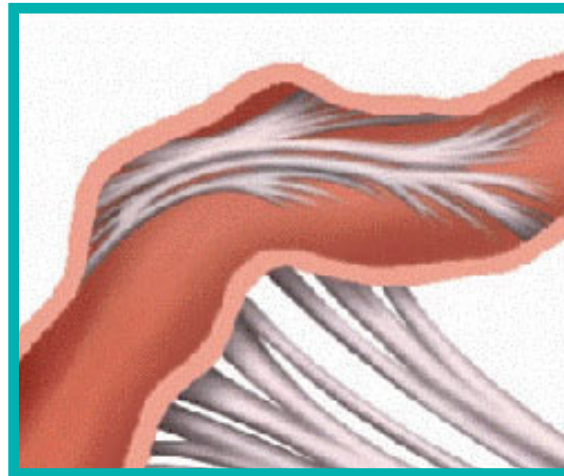
3 What Are the Three Types of Blockages?

The diagnosis of “blocked fallopian tubes” is one of the most difficult diagnoses for a woman to hear and for a gynecologist to treat. Blockages may be found in the following areas:

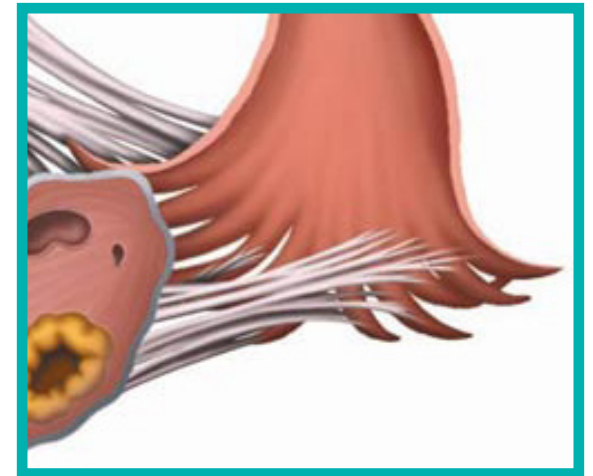
- Proximal: near the uterus, called the isthmus
- Mid-tubal: in the middle portion of the tube, called the ampulla
- Distal: at the end of the tube, by the ovary and fimbriae (the fingerlike projections that create the end of each tube)



Proximal



Mld-Tubal



Distal

4 What is the Cause of the Blockages?

In some women, the reason for the blockage may be unclear. For some patients, tubal occlusion is thought to be related to adhesions that form after a C-section or pelvic surgery, such as the repair of a ruptured appendix. In a large number of cases, sexually transmitted diseases (e.g., Chlamydia or PID), pelvic infection or inflammation (e.g., salpingitis) cause adhesions that can block a tube. In most cases, adhesions are the primary cause, or are intimately involved in tubal occlusion.



5 Any other causes?



Secondary causes of blocked fallopian tubes include tubal spasm and mucous plugs.

Spasm of the fallopian tubes is considered to block the tube, but only when it is in spasm.

While some physicians feel that this does not represent true blockage, others acknowledge that spasm represents a pathological state which can interfere with fertility. Mucous plugs are generally thought to form as a response to inflammation or tissue injury.

Just as your knee might swell if you've received a trauma to that area, the body sends white blood cells and repair mechanisms to the fallopian tube that has become inflamed or infected to help the area heal. As tissues repair and the body's immune system starts to fight infection, adhesions may form within the tube.

6 How do I find out if my Fallopian Tubes are blocked?

Chromotubation is performed during a surgical procedure, either laparoscopy or laparotomy. During the surgery, dye is injected through the cervix and into the uterus. The surgeon observes directly whether the dye exits from the end of the tubes, by the ovary and fimbriae. If the dye exits copiously (called “free spillage”) the tube is open (patent) and generally considered functional. Surgery has the advantage (or disadvantage) of excluding spasm as a cause of tubal occlusion because the tubes and reproductive tract are totally relaxed, with the patient unconscious, under general anesthesia.

Hysteroscopy uses a thin optical device that is inserted through the vagina into the uterus. It may be performed before or simultaneously with a laparoscopy. The physician uses saline or carbon dioxide to fill the uterus. A light at the end of the instrument allows the doctor to see the uterine walls, the opening of the fallopian tubes at the top of the uterus, and any fibroids or polyps. A camera is attached to the end of the scope to broadcast the image of the inside

7 Is there a less invasive method?

The least invasive method of determining if the tubes are open is to perform a hysterosalpingogram (HSG). This dye test is generally conducted in the radiology department of a hospital, but without the need for anesthesia (although some physicians recommend valium or another relaxant about an hour prior to the procedure). In an HSG, a catheter (a mobile straw) is inserted into the uterus via the cervix. The physician then injects a radiological dye through the catheter, and films the process of the dye as it goes into the uterus, and hopefully through the

fallopian tubes. Thus, the physician can then tell whether there is “free spillage” of the dye (the preferable outcome), partial blockage (delayed or minimal spill), or total blockage (no spill into the abdominal cavity), and whether the blockage occurs proximally, mid-tubally, or distally.

The physician can also tell by the shape of the dye within the tube if there is any swelling, indicating hydrosalpinx. Physicians who are experts at reading HSG films can get a sense by the shape and course of the dye of the effects of adhesions, uterine fibroids, and other factors that might present a problem to fertility. In doing so, they can generally

8 How do I treat a Blocked Fallopian Tube?

Surgeons may choose to surgically repair a tube in any of several ways. When the blockage is proximal (near the uterus), they can insert a wire, catheter, or balloon into the tube to try to open it. Most physicians find their greatest success when the tube is blocked proximally — close to the uterus.

This surgical site can be accessed from inside the uterus with cannulation, sometimes accompanied by a balloon to widen the channel — a procedure involving the insertion of a flexible catheter or tube into the fallopian tube. Other physicians choose to cut or burn the adhesions with a laser.

Tubes that are blocked mid-tubally require a more

complicated surgical intervention via laparoscopy or open surgery performed under general anesthesia. A tube that is blocked in its mid-portion can be cut (resected), and the adhesions cut or burned. Then the ends of the tubes are rejoined via tiny sutures (stitches) or by laser cauterization. Perhaps the most difficult tubal occlusion to treat is a tube that is blocked at the distal end, by the ovary. As noted earlier, the end of the fallopian tube has very delicate fimbriae. These are finger-like projections whose job is to grasp the egg when it is released from the ovary. It is very difficult to surgically free fimbriae that are adhered from scarring, endometriosis, or infection, and to prevent these structures from scarring again.

9 What is the Success of Surgically treating my Blocked Fallopian Tube?

The success rate for surgically opening proximally occluded tubes is high, but unfortunately, over 80% re-block six months after surgery, according to published medical literature. Thus, more often than not, the surgery grants the patient a brief window in which to conceive naturally.



10 Is there a Non Surgical method?



Understanding the complexities and often poor outcomes of surgery on the fallopian tubes, you can understand the surprise and delight of our patients (and the shock of our therapists and our

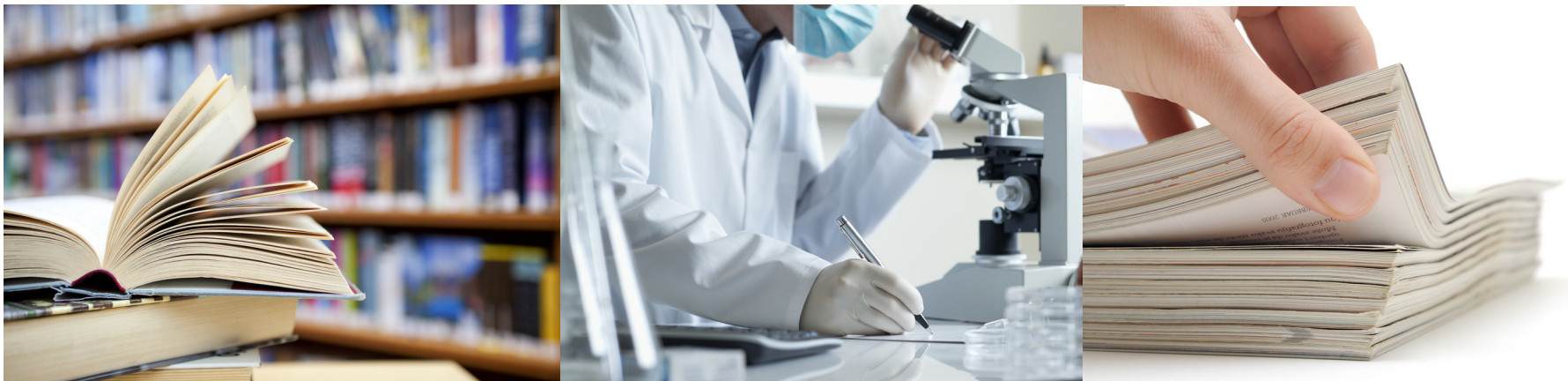
referring physicians) when they found that the manual physical therapy techniques (Wurn Technique) Clear Passage Physical Therapy had developed to treat pelvic adhesions were opening blocked fallopian tubes at all three sites, followed by natural full-term pregnancies. Over time, we have come to understand that by slowly peeling away adhesions cross-link by cross-link, we appear to free the underlying tissues and return them closer to their original shape, structure, and function. As such, even the most adhered and seemingly impossible cases often surprised us with resulting open tubes, full-term pregnancies, and in several cases subsequent pregnancies from the previously blocked tubes and clubbed fimbriae.

10 Common Questions Answered

The results of a multi-year study of treating women with total bilateral tubal occlusion using the Wurn Technique® was published in *Alternative Therapies in Health and Medicine* and summarized in *Contemporary Ob-Gyn*, both respected peer-reviewed journals. Most of the 61% of women whose tubes we opened with this therapy became pregnant naturally, and some have now had second full-term pregnancies.

The women in the published study had total occlusion before therapy because either:

- one tube had been removed and the remaining tube was totally blocked, or
- both tubes were totally blocked.



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