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TODAY'S HEALTH FOR THE EMPOWERED WOMAN

THE "TUBES"

Having previously written of the "wonders of the uterus", it is time to render some information about the often confused, much maligned and, to health care providers, the very worrisome "tube (s)". What the lay person refers to as the "tubes" are the fallopian tubes, described by the anatomist Fallope and often known as the oviducts. These are the organs that are in communication with the uterus, one on each side, to the ovary. Approximately eight inches in length they enlarge as they approach the ovary to a funneled end called the fimbria. The channel within has a diameter similar to that of the lead in wooden pencil. The function is to carry sperm that has made it's way from the vagina, cervix and uterus to the midportion of the tube where, if all other things go right, it meets an egg three days after ovulation, fertilization occurs, and then the fertilized growing egg traverses the tube back to the uterus where it implants onto the uterine wall where the embryo, then fetus, grows until birth nine months later. Within the tube there are glands and fine hairs (cilia) that promote this passage and when the anatomy and physiology are correct, this process occurs seamlessly. But what happens when something isn't normal? I have actually operated on women for an unrelated issue and found that one or both tubes have been missing or congenitally malformed. There are diseases such as endometriosis (described in a previous article) which distort or block the tubes; a condition called salpingitis isthimica nodosa that causes blocked swellings in the tube; infections such as Chlamydia and gonorrhea that damage the tubes with adhesions and rarely cancer of the tubes which is life threatening. If the sperm is blocked from reaching the egg infertility ensues. This can be diagnosed by an x-ray (hystosalpingogram) in which dye is injected through the cervix to look for blockage or by a camera through the belly button (laparoscopy) while observing the tubes directly as dye is injected. If blocked, they can sometimes be fixed by cutting the adhesions with cautery or laser but these procedures are notorious for causing more adhesions just from the surgery. Many women choose to undergo invitro fertilization at this point in which a fertilized egg(s) are removed from the ovary, fertilized outside of the body with donor or husband sperm and then injected directly into the uterus through the cervix, thereby bypassing the blocked tube. It is beyond the scope of this article to enumerate the cost and complications and medico-legal ramifications of this, now, widely accepted procedure that is on the rise as diseases of the tube increase due to an increase in venereal diseases. Sometimes the sperm can venture beyond the blocked tube but the now fertilized egg cannot make its way to the uterus and a tubal (ectopic) pregnancy occurs. This is characterized by pain and bleeding and has a 40% mortality rate if not treated by dissolving the pregnancy with medications, removing the tube, or surgically resecting it. With the advent of sonography and a healthy suspicion when there is a positive pregnancy test and pain, this condition is now usually treated successfully with laparoscopy. Those women who have completed their childbearing frequently come to the office asking for a "tubal". Currently this is the most widely used method of contraception. It is irreversible with the current techniques although I was previously

trained to “undo” this procedure in an arduous four hour microscopic marathon with a success rate of only 30%. Previously this was done the day after delivery through a belly button incision and each tube had a section removed and tied or burned or both. Failure rate is often quoted as one in two thousand……….reasons unknown. Living tissue can grow back but it is more effective than birth control pills and other methods. Another technique was a small bikini cut incision to do the same work. For the past fifteen years or so, commonly this procedure is done laparoscopically with one small incision through which each tube is burned in two locations. It is effective immediately and contrary to mythology does not cause weight gain or abnormal bleeding. If a woman had been on birth control pills and experienced light periods, now being off the pill with resumption of normal periods might incorrectly be interpreted as increased bleeding. Two relatively new techniques involve placing plastic or metal coils into the tubes through a camera and device through the cervix without an incision but sterility cannot be ascertained until an x-ray is done three months later to prove that the tubes are blocked. I previously stated that the tubes can rarely develop cancer but more commonly they develop cysts and blockages that can be painful or entirely without symptoms. With sonography, laparoscopy, and well trained providers all these conditions can be diagnosed and usually treated with the preservation of fertility.