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Information on MESA vs. Testis Biopsy **& Post-operative Instructions**

Under certain circumstances, it may be appropriate to obtain sperm through surgical methods for use in invitro fertilization (IVF) techniques. Such sperm can be aspirated directly from the epididymis gland (a gland that is attached directly to the testicle) or can be obtained from tissue that is removed from the testicle itself. Since the number of sperm that can be obtained surgically is quite small when compared to the number of sperm in a normal ejaculation, it is necessary to use these sperm in an IVF procedure rather than in a simple insemination. The number of sperm that can be aspirated is generally so limited, in fact, that the IVF technique of intracytoplasmic sperm injection (wherein a single sperm is injected into each egg) is generally required. Fortunately, the technology of IVF has improved in recent years to the point where the success rates of such procedures using aspirated sperm is typically equal to those using ejaculated sperm.

Situations in which surgical sperm retrieval is needed include men who have an obstruction somewhere between the testicle and the urethra (such as men who have had a vasectomy and do not desire a vasectomy reversal, men who have suffered an injury to the epididymis gland or the vas deferens, or men who are born with an obstruction in some component of their reproductive system) or men who suffer from a severe decrease in sperm production. The group of men who suffer from impaired sperm production generally require testis biopsy (in which a small amount of testis tissue is surgically removed) in order to allow the retrieval of sperm from the tissue for use in IVF rather than sperm aspiration.

Either sperm aspiration or testis biopsy is an outpatient procedure that requires a small incision on one or both sides of the scrotum. The procedure often can be done after the administration of a sedative medication given by vein, rather than requiring the patient be fully asleep. In addition to the sedative, a local anesthetic (similar to that used by a dentist) is administered at the site of the incision. Allowing time for preparation of the

procedure and a short stay in the recovery room, surgical sperm retrieval usually takes about one-half day.

Following either sperm aspiration or testis biopsy, a patient can expect moderate discomfort for a few days while healing takes place. It is advised that the patient take the next day or two off from work. It is also advised that a patient stay off his feet for 24 hours post-operatively, or as much as possible during that time, to minimize swelling and discomfort. It is helpful to place an ice pack on the scrotum for 10-minute periods alternating with 10-minute periods without ice for several hours following surgery. Patients can usually resume their regular activities within a few days after the procedure, increasing their activity as resolution of the discomfort allows.

The incision(s) in the scrotum will be closed with absorbable suture, which does not need to be removed. Typically, patients return to the clinic 10 – 14 days following surgery to have the incision site examined for normal healing.