

# **Anesthesia for Cesarean Section**

## **Regional Anesthesia**

Regional anesthesia is performed by using local anesthetics to block the nerve conduction or communication to part of the body so the patient cannot feel pain in that specific area.

### **What are risks and benefits of regional anesthesia?**

Overall regional anesthesia techniques are safe, however, the potential for side effects and complications exists with any form of anesthesia. The most frequent benefit of regional anesthesia is localized anesthesia to the site of the surgery only, minimizing the use of anesthetic inhalational (gas) or intravenous (IV) drugs. Additionally the regional technique often provides prolonged post-operative pain control minimizing the immediate need for pain medications. Common problems include incomplete or failed anesthesia at the surgical site and rarely patient awareness of the surgical procedure.

### **What is spinal anesthesia?**

Spinal anesthesia or spinal involves the placement of an anesthetic into the spinal sac located within the spinal column. A "spinal" is usually performed at the level of the lower back (lumbar vertebrae). Once the anesthetic is injected into the spinal sac it affects the conduction of the spinal cord and spinal nerves at the site. Typically patients cannot feel or move areas that are treated.

### **When is spinal anesthesia used?**

We commonly use spinal anesthesia for certain surgical procedures and sometimes to provide post-operative pain management. It is commonly (along with epidural anesthesia) used for obstetrical surgery such as Cesarean sections.

### **How is spinal anesthesia performed?**

The procedure for placing a "spinal" is very similar to that for an epidural anesthetic. The "spinal" is placed using a very small needle. Once the needle reaches the spinal sac, anesthetic is administered and the needle is removed. The effect of the spinal is faster than epidural anesthesia and usually full effect is reached in 10 minutes. Spinal anesthesia can last up to 4 hours depending on the anesthetic used.

### **What is epidural anesthesia?**

Epidural anesthesia or "epidural" involves the placement of anesthetics within the epidural space of the spinal column. Depending the location or "level" of the epidural injection, the epidural anesthetic will block the conduction of the nerves at that region of the body. Typically we place a catheter or "tube" at this location so we can continuously give anesthetic into the epidural space using a medication pump.

### **When is epidural anesthesia used?**

We commonly use epidural anesthesia for certain surgical procedures and to provide post-operative pain management. It is the technique of choice for control of labor pain in our practice as well.

### **How is epidural anesthesia performed?**

The technique is performed with the patient sitting or lying down (fetal position). An epidural introducer needle is used to find and place a catheter into the epidural space. Once anesthetic is introduced the effects usually take 15 minutes or more to take full affect. Epidural anesthesia can be continued up to 5 days with the catheter in place if indicated.

### **What are the common risks and side effects of epidural/spinal anesthesia?**

Common side effects and complications of epidural and spinal anesthesia include a persistent headache ("spinal" headache), incomplete anesthesia, low blood pressure, shivering and nausea. Persistent back pain is not considered a side effect of epidural or spinal anesthesia.

## **General Anesthesia**

General anesthetics are medications that put you to sleep (make you lose consciousness). If you have general anesthesia, you are not awake and you feel no pain. General anesthesia often is used when a regional block anesthetic is not possible or is not the best choice for medical or other reasons. It can be started quickly and causes rapid loss of consciousness. Therefore, it is often used when an urgent cesarean delivery is needed.

### **What are the risks of general anesthesia?**

A major risk during general anesthesia is caused by food or liquids in the woman's stomach. Labor usually causes undigested food to stay in the stomach. During unconsciousness, this food could come back into the mouth and go into the lungs where it can cause damage. To avoid this, you may be told not to eat or drink once labor has started. If you need general anesthesia, your anesthesiologist will place a breathing tube into your mouth and windpipe after you are asleep. If you are having a cesarean delivery, you also will be given an antacid cesarean delivery, you also will be given an antacid to reduce stomach acid. In some cases, ice chips or small sips of water are allowed during labor. Talk to whether you have general, spinal or epidural anesthesia for a cesarean birth will depend on your health and that your baby. It also depends on why cesarean delivery is being done. In emergencies or when bleeding occurs, general anesthesia may be needed.

Sources: Group Anesthesia Services, A Medical Corporation, Los Gatos, CA and The American Society of Anesthesiologists