

Glossary

Amniocentesis: A procedure during which a small amount of fluid surrounding the baby is removed from the womb and studied for a variety of possible birth defects. Open spina bifida can be detected by abnormally high levels of alpha-fetoprotein in this fluid.

Anesthesiologist: A doctor specializing in the use of medications which put people to sleep during surgery.

Body Mass Index: A measurement of body fat content. It is found by dividing an individual's weight in kilograms by their height in meters squared (weight in kg/height² in meters).

Chromosomes: The rod-shaped structures found inside every cell of the body which contain the information that determine all of an individual's characteristics. Normal human cells contain 46 chromosomes.

Folic Acid: A common B vitamin. A daily dose of 0.4mg taken for three to four months prior to the start of a pregnancy and continued daily during the first three months of pregnancy will decrease the chances of having a baby with spina bifida or other *neural tube defect*.

General anesthesia: The use of medications to put someone completely to sleep during an operation.

Hydrocephalus: Overfilling of the fluid cavities (*ventricles*) of the brain. A shunting device is usually needed to control hydrocephalus in individuals with spina bifida.

Karyotype: A test which looks at the number and appearance of the *chromosomes* of an individual. The karyotype of an unborn baby can be done on cells taken from the fluid removed from the womb by *amniocentesis*.

Maternal Serum Alpha-fetoprotein (MSAFP): Alpha-fetoprotein is a substance made by all babies while they are in the womb. If the baby has an open spina bifida defect or other *neural tube defect*, abnormally high levels of this protein are found in the fluid surrounding the baby and in the mother's blood. Blood can be drawn from the mother and the amount of alpha-fetoprotein measured. If the level is suspiciously high, further testing is usually recommended. Usually a sonogram of the baby is done along with an amniocentesis to directly measure the amount of alpha-fetoprotein in the fluid surrounding the baby.

Myelomeningocele: Synonym for the most severe form of spina bifida. The spinal cord has not completely developed and is open on the back of the baby because the overlying bones, muscle and skin are also open.

Obstetrician: A doctor specializing in the management of pregnant women and the delivery of babies.

Placenta Previa: The location of the placenta at or near the internal opening of the cervix. If the placenta is located near the opening of the cervix, severe bleeding can occur during delivery.

Randomization: The process of selection done in a way so that there is no predictable or specific pattern. In a research study, the assignment of volunteers to one test group or another is

randomized to eliminate the possibility that the results will be influenced to factors not measured in the study. In the MOMS the chances of being in either the prenatal or postnatal surgery groups is 50%, the same odds as getting a heads or tails when flipping a coin.

Short Cervix: The length of the cervix can be measured by sonogram. A measurement less than 20mm is considered short.

Shunt: A thin, flexible, straw-like device which is implanted in the fluid cavities of the brain to control the build-up of cerebrospinal fluid. Shunts most commonly run under the skin from the head to the abdominal cavity.

Sonogram: A test done using sound waves which can show various internal structures. Sonograms are commonly used to examine unborn babies.

Ventricles: Fluid cavities within the brain. Enlargement of the ventricles with fluid is called hydrocephalus.