

# **Shoulder Dystocia (SD) and Brachial Plexus Palsy (BPP): cause and prevention**

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## **Abstract**

The current definition of shoulder dystocia is inconsistent. The American College of Obstetricians and Gynecologists' (ACOG's) Practice Bulletin Number 40 on shoulder dystocia has two pseudo definitions: (1) failure of the shoulders to deliver spontaneously, putting both mother and fetus at risk for injury; and (2) failure of the delivery attendant to deliver the anterior shoulder by gentle downward traction, thus requiring additional obstetric maneuvers. Shoulder dystocia is caused by impaction of the anterior shoulder behind the pubic symphysis. ACOG does not define any cause for brachial plexus palsy; however, moderate or severe downward head traction is implied to be injurious.

A downward tilted pelvis is the major cause of anterior shoulder arrest; it is usually relieved or prevented by McRoberts' position. The mother then spontaneously delivers the shoulders. This is postural shoulder arrest and is not true shoulder dystocia (SD).

Failure of the mother in full hip flexion to deliver the shoulders spontaneously is true shoulder dystocia. Various maneuvers are available to correct this situation; all supplement physiological delivery forces and movements that do not increase traction on the brachial plexus. Resuscitation of the child must be pre-planned.

Brachial plexus injury is a traction injury caused by pulling the head and neck down and away from the shoulder. Nerves may be bruised, stretched, torn or ruptured; nerve roots may be avulsed from the spinal cord.

SD is largely preventable by delivering all patients in McRoberts' or equivalent position. Brachial Plexus Palsy (BPP) is avoidable by never applying head traction at any delivery and using maneuvers to deliver the shoulders that avoid any tension on the brachial plexus.

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