India's First Open Fetal Surgery: AIIMS Repairs Spina Bifida in Womb

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15 November 2026: AIIMS, New Delhi, has performed India's first open fetal surgery. On 12 November, in a six-hour operation at 25 weeks' gestation, doctors repaired the unborn baby's lumbosacral myelomeningocele - the most severe form of spina bifida - in utero, closing a defect that was leaking cerebrospinal fluid.

The operation: how it was done

Preparation: more than five weeks of multidisciplinary planning - detailed fetal imaging, non-directive counselling, anaesthetic preparation and operative simulation.

Technique: performed at the Neurosciences Centre, AIIMS, using high-end microscopy and continuous ultrasonography assistance; over 30 clinicians and nurses from obstetrics and gynaecology, maternal-fetal medicine, neurosurgery, obstetric and neuro-anaesthesia, plastic surgery, radiodiagnosis and neonatology participated.

Monitoring: the mother and fetus will remain under close multidisciplinary monitoring through the rest of the pregnancy, delivery and the newborn period.

What is myelomeningocele

Definition: an open neural tube defect in which the spinal cord and its coverings protrude through an opening in the spine.

Risks: without treatment, children can develop paralysis, hydrocephalus and other lifelong neurological disabilities.

Prevention first: AIIMS stressed that fetal surgery is a treatment for selected pregnancies, not a substitute for preventing neural tube defects (for example, folic acid before pregnancy).

JSSK: free treatment

Janani Shishu Suraksha Karyakram (JSSK): a scheme under the National Health Mission providing free delivery and care for sick newborns in government health facilities; the family received this operation completely free of cost under it.

For the exam

Questions can be asked on the 'first' nature of the operation, the definition of spina bifida/myelomeningocele, the gestation (25 weeks), the institution (AIIMS New Delhi) and the JSSK scheme.

Quiz: Test your knowledge

Q1: Consider the following about India's first open fetal surgery at AIIMS: 1. It repaired myelomeningocele, a severe form of spina bifida. 2. It was performed at 25 weeks' gestation. 3. It was provided free under the Janani Shishu Suraksha Karyakram. How many are correct?

(a) Only one(b) Only two(c) All three(d) None

Answer and explanation: (c) All three are correct - the six-hour surgery on 12 November at 25 weeks was free to the family under JSSK.

Q2: What kind of defect is myelomeningocele?

(a) A congenital defect of the heart valves(b) An open neural tube defect in which the spinal cord protrudes(c) A genetic blood disorder(d) A developmental defect of the pancreas

Answer and explanation: (b) It is the most severe form of spina bifida - the spinal cord and its coverings protrude through an opening in the spine; risks include paralysis and hydrocephalus.

Mains Practice Question

AIIMS' first open fetal surgery demonstrates the technical maturity of India's public health system. Analyse the challenges of taking advanced medical procedures to the common people. (Answer in 250 words - 15 marks)

Answer outline:

Introduction: The context - the first open fetal surgery at 25 weeks of pregnancy.

Main body: Significance of the achievement - multidisciplinary skill, world-class capability in a government institution; free access through JSSK. Challenges - the limited number of such centres, shortage of specialists, cost, weak prevention at the primary level (folic acid, antenatal screening), regional inequality.

Conclusion: Only a balance of prevention + referral chain + insurance/scheme support will make advanced care equal for all.

Frequently Asked Questions (FAQ)

In short: AIIMS New Delhi performed India's first open fetal surgery on 12 November 2026, repairing myelomeningocele at 25 weeks' gestation; the procedure was free under JSSK.

Question: What is open fetal surgery?

Surgery performed on the fetus while still in the womb - in this case, repairing a spinal defect at 25 weeks to limit damage before birth.

Question: What is JSSK?

Janani Shishu Suraksha Karyakram - a National Health Mission scheme entitling free delivery and sick-newborn care in government facilities.

Question: How can spina bifida be prevented?

Adequate folic acid before and in early pregnancy substantially reduces the risk of neural tube defects; fetal surgery is not a substitute for prevention.

Sources:

- News on AIR (Akashvani): AIIMS Delhi performs India's first open fetal surgery, 14 November 2026
- Indian Express: India's first-of-its-kind fetal repair performed at AIIMS

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