

ISSUE BRIEF #1, JUNE 2010

## Fetal pain, analgesia, and anesthesia in the context of abortion

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### Overall summary

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- Based on the best available scientific evidence, a human fetus probably does not have the functional capacity to experience pain until after the beginning of the third trimester of pregnancy, and it is unlikely that pain can be experienced until birth.<sup>1</sup>
- This conclusion should provide relief and comfort to women and their families and those concerned with the health of pregnant women.
- Laws requiring that women be informed of the potential existence of fetal pain should be modified to be consistent with scientific evidence.
- Requiring that women be offered anesthesia for the fetus increases the risk of complications from unnecessary and potentially unsafe medical interventions and delays women's access to care.<sup>2</sup>
- Any discussion of how fetuses/babies experience pain should also include the question of the baby's sensation during the birth process and post-birth medical interventions, and not focus exclusively on termination of pregnancy issues.
- Women's health is promoted when public policy reflects the most up-to-date science.

### Interpreting the science

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- Misinterpretations of science are commonly promoted by abortion opponents to suggest the existence of fetal pain. A detailed review of the scientific evidence by teams of leading scientists and clinicians does not support such interpretations.<sup>1,2</sup>
  - Brain circuitry responsible for relaying some types of sensory information may begin developing around 24 weeks' gestation. However, the presence of the "wiring" does not necessarily mean that the circuits are actually functional. Assuming a relationship between the two is not supported by scientific evidence.
  - Studies suggest that the first pathways associated with pain perception are not present until well into the third trimester. There is increasing evidence that the fetus never experiences a state of true wakefulness in utero and is kept in a continuous sleep-like unconsciousness or sedation, by the presence of its chemical environment. This state can suppress higher cortical activation in the presence of intrusive external stimuli. Although abortion opponents claim that studies of hormones triggered by stress indicate that a fetus feels pain, this is untrue. Those same hormones may also be triggered by stress during non-painful situations. Thus these studies do not support the existence of fetal pain.<sup>3</sup>

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For more information and resources on what we know about fetal pain, please visit [www.ansirh.org/research/late-abortion/fetal-pain.php](http://www.ansirh.org/research/late-abortion/fetal-pain.php)

- Abortion opponents claim that limb withdrawal from a tactile stimulus is evidence of pain perception. However, limb withdrawal occurs even in full-term babies in response to non-painful tactile sensations, including light touch. Thus the appearance of limb withdrawal on ultrasound represents a reflex rather than a response to pain.<sup>1</sup>
- Both abortion rights opponents as well as other well-meaning people have recommended the use of anesthesia to prevent fetal pain should it exist. However, there are *no* known safe and effective methods of providing pain control directly to a fetus. Rather, advocating for medical intervention to control pain risks the health of the pregnant woman by promoting unproven, untested, and clinically experimental medicine.<sup>2</sup>
- The only study that experimented with injecting pain medication directly into human fetuses within the uterus measured changes in fetal stress hormones, so it is unknown whether the injection reduced pain. The study failed to examine the possible risks to the woman's health, such as uncontrolled bleeding. One other experimental method, which consists of injecting pain medication into the amniotic fluid surrounding the fetus in the uterus, has only been tried in sheep, not in humans.
- The option of administering general anesthesia to the woman or increasing the woman's dose of pain medicine increases the medical risk of the abortion without known benefit to the fetus.

To view sources and for more information on the issue of fetal pain:

[www.ansirh.org/research/late-abortion/fetal-pain.php](http://www.ansirh.org/research/late-abortion/fetal-pain.php)

### Responses to anticipated questions

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**Q.** If animals and preterm babies receive analgesia during procedures, why shouldn't human fetuses automatically receive analgesia during abortions?

- Animals and babies are in a very different situation compared to fetuses. For animals and babies born prematurely (neonates), risks and benefits are weighed only for the animal or the neonate itself. In contrast, for the fetus, the risks and benefits for the pregnant woman undergoing the abortion must be weighed. Providing experimental fetal analgesia/anesthesia may compromise the woman's safety and present risks to her health. These risks are unjustified, given the lack of scientific evidence demonstrating functional fetal pain perception before the third trimester. There are important neurological and biochemical differences between fetal and neonatal life which is why scientists do not extrapolate from observations made in newborn preterm infants to the fetus who is still inside the pregnant woman. Analgesia is not always recommended in the event of potential painful events. For example, we do not use analgesia during the birth process when the baby's head is compressed passing through the cervix.

**Q.** If fetuses receive analgesia or anesthesia during other surgical procedures in the uterus, why shouldn't they get similar treatment during an abortion?

- These are two very different scenarios. For fetal surgery, the woman undergoes sedation which is transferred to the fetus. The analgesia/anesthesia given to the fetus is not used primarily to prevent the experience of pain by the fetus. Rather they are used to relax the uterus to prevent premature contractions, to immobilize the fetus, to prevent possible adverse surgical outcomes, and to prevent possible long-term neurodevelopmental changes in pain response behaviors. None of

these objectives is applicable to an abortion. Similarly, analgesia or anesthesia directly to the fetus is not used during the birth process.

**Q.** I can understand why we shouldn't require fetal analgesia/anesthesia for all abortions, but why shouldn't we allow the woman to choose for herself whether she wants fetal analgesia/anesthesia during an abortion?

- Patient autonomy is critically important. However, there is no known safe and effective fetal analgesia/anesthesia to offer in the context of abortion.
- Additionally, patients should be advised that such measures are unnecessary because science does not support that fetuses feel pain before the third trimester, which is well after when the vast majority of U.S. abortions are performed. Eighty-eight percent of U.S. abortions are performed before 13 weeks and around 99% are performed before 21 weeks.(CDC 2003)
- The goal of quality patient care is to inform women of the most up-to-date scientific information. Requiring that women be offered care that is not needed nor demonstrated as safe violates that goal.

**Q.** How does offering fetal analgesia/anesthesia for abortions increase the risks to the pregnant woman?

- Abortion is a very safe procedure but the risks of abortion increase when general anesthesia is used.
- Procedures used to administer medications directly to the fetus can cause bleeding and infection in the pregnant woman.
- Many abortion providers do not have the capacity to offer the experimental procedures promoted by abortion opponents. Therefore women would be required to seek out different facilities to obtain their abortion care, possibly delaying their access to care. Although abortion is a very safe procedure, the risks of abortion increase as the pregnancy advances. Even a week's delay caused by having to seek out another abortion provider can increase the risk to the pregnant woman.

**Q.** Why shouldn't doctors be required to tell women about the potential for pain in the fetus?

- Americans overwhelmingly oppose the imposition of politics into the doctor-patient relationship. Requiring that women be informed of something that is not supported by the most up-to-date science is not consistent with our national values.
- Mandating that physicians tell women misinformation violates the principles of informed consent.

#### References

- <sup>1</sup> Royal College of Obstetricians and Gynaecologists. Fetal Awareness Review of Research and Recommendations for Practice. London, UK: Royal College of Obstetricians and Gynaecologists; 2010 March.
- <sup>2</sup> Lee SJ, Ralston HJ, Drey EA, Partridge JC, Rosen MA. Fetal pain: a systematic multidisciplinary review of the evidence. *Journal of the American Medical Association* 2005;294:947-54.
- <sup>3</sup> Derbyshire SW. Can fetuses feel pain? *British Medical Journal* 2006;332:909-12.