

Good Morning, Mr. Chairman, and Ladies and Gentlemen of the Committee!

My name is Dr. W. A. Krotoski; I am a physician and retired medical scientist, living in Louisiana since 1974, and in Baton Rouge since 1982. I represent *The Hippocratic Resource*, a Louisiana-wide organization of physicians and other health professionals who have committed to promoting medical truth and the principles of the Hippocratic Oath, the foundation of medical ethics. Although retired from active clinical practice, I continue to serve with several medical organizations, including on the medical research ethics board of Baton Rouge General Medical Center. **I am testifying today in favor of Representative Crowe's HB 25 for three basic reasons:**

First – There is absolutely no rational, scientific, medical or ethical reason to think that the unborn child is anything but human from the moment of fertilization, and throughout his or her developmental period in the womb. This has been recognized since long before the advent of effective microscopy in the late 17th century, and modern advances have done nothing to dispel that concept. On the contrary, they have simply strengthened that awareness, as illustrated and fully supported by *in vitro* fertilization and DNA technologies, neither of which could function were that not so. The medical specialties of fetology and neonatology are also clear testimony that a physician attending a pregnant woman has responsibility for at least two patients – more, in the case of twins, triplets, etc.

Second – We now know more than we ever knew about human development in the womb. We know, for example, that development is a virtually seamless spectrum, one that we are able to divide only crudely into stages that medical science has had to name for purposes of communication and discussion. We know that some organ systems are developed only to produce others, then fade away when their jobs are done. We know that brain waves and heartbeat can be detected by the end of the 3rd week after fertilization, sometimes even before the mother recognizes that she has missed a menstrual period. We know also that, by the 20th week of gestation, an unborn child has the necessary physical structures to experience pain, and that he or she is able to react to stimuli outside the womb. These responses range from pushing back or kicking when pushed, to interaction with musical rhythms – among many other behaviors – in ways similar to those of an infant or even an adult. We also know that even at much earlier stages, this unborn child frantically avoids such noxious stimuli as a foreign object introduced into the womb, for instance a cutting suction catheter that is about to dismember him or her in the process of an abortion. We know the last to be so, because modern technologies – for instance real-time ultrasound videography – actually allow us to see that that is what happens. In short, we know by simple deduction that pain is a part of abortion, and that that pain is both severe and prolonged. Imagine if you will, someone amputating or tearing off a limb from your body without benefit of anesthesia – or burning off your most delicate skin surface with a caustic salt solution! Frankly, we wouldn't treat a pet that way – there are laws against cruelty to animals – and we wouldn't even slaughter an animal for food without first making sure that it was dead or, at the very least, unconscious. Unfortunately, that is **not** what is done in the process of abortion. That is part of the gruesome reality of the business!

And finally, those who promote the freedom to choose will surely recognize that, to be genuinely free, a choice must be fully informed. This is also the essence of our medical and clinical standard – that of thoroughly informed consent being obtained from a patient or experimental subject before proceeding. In the case of children, of course, such informed consent must be obtained from a parent, usually the mother – who normally is instinctively protective of her child. And for many medical purposes, even the born child has to provide some degree of consent after being informed of what is to be done, in a way that he or she can understand. Of course, in the case of a child about to be aborted, there is no such thing as his or her informed consent. Nevertheless, before surgery on an unborn child in the womb – which is being done with increasing frequency due to the development of new technologies – anesthesia is given for those over 20 weeks of gestational age, because of the recognition that pain is produced by the stretching, cutting, suturing and other manipulations required. Given the large amount of misinformation that has been sown over the last generation about life and development in the womb – particularly by those promoting abortion – it is most important to provide truthful information to the primary guardian of that unborn child, i.e. to her or his mother, about what is going to be done. She has to be thoroughly informed about what is really going to happen to her growing, developing and maturing child. Written information about pain, and, even more, an obstetrical ultrasound (which is now so readily available that it comes in a portable version), are clearly in order. Only in this way can we ensure that the mother can make some degree of rational judgment and a reasoned decision about whether or not to kill this unquestionably human being inside her womb. We must also remember that abortion is severely harmful to a woman's health. The rate of suicide among women who have had an abortion is **at least six times** that of women who have not, and other, physical damage can occur as well, including, among others things, retained parts of the child, uterine bleeding, bowel perforation, reduced- or infertility, and even death.

Therefore, Mr. Chairman and Committee Members, in the spirit of the right to know the genuine facts before making an *informed* decision, I urge your support and a favorable judgment on Representative Crowe's HB 25, to tell the full truth to the mother who is deciding what to do with her unborn child. Thank you, also, for your attention to the *addendum* on the reverse of the written transcript of my testimony provided you!

ADDENDUM:

One of the more recent articlesⁱ on the subject of fetal pain – and one cited by opponents of this type of legislation to provide full, informed consent to a woman intent on abortion – appeared in the Journal of the American Medical Association in January of 2005. Authored by an attorney with four physician co-authors, this article concluded that a fetus younger than 23 weeks of gestation could not feel pain, because the group was unable to identify visible microscopic nerve connections between thinking and pain-processing centers prior to that age. *However*, in follow-up published responses, this conclusion was roundly criticized, as hormonal stress levels can be observed in the human fetus as early as 18 weeks of age,ⁱⁱ and hormonal measures of pain stress show activity in the thinking parts of the brain much earlier than the 29-30 weeks proposed by the attorney’s articleⁱⁱⁱ for conscious pain. Two quotes from the critiques are in order here:

(1) Dr. Laura Myers and her three colleagues from the Children’s Hospital, Boston, asserted^{iv} that, although “[w]e do not know for certain [the full capacity of the fetus to feel pain] ... we as clinicians should focus on methods to deliver effective anesthesia and analgesia safely. Better to err on the safe side from mid-gestation [18-20 weeks].” This group “routinely provide[s] anesthesia and analgesia to fetuses as early as 19 weeks gestation for certain [surgical] procedures.” Another,

(2) by Dr. Brian Sites of the Department of Anesthesiology at the Dartmouth-Hitchcock Medical Center in New Hampshire, cited the original articleⁱ as “inaccurate and ethically disturbing,” indicating that those authors had chosen the upper (latest established) rather than the lower limit of brain connections identified, and that the fetus could be experiencing pain as early as 21 weeks (by data from *that same study*)^v.

To reiterate, from a clinical point of view, it is “better to err on the safe side!”

ⁱ S. Lee *et al.*, *JAMA*. 294:947-954 (2005)

ⁱⁱ X. Giannakoulopoulos *et al.*, *Lancet* 344:77-81 (1994)

ⁱⁱⁱ R. Slater *et al.*, *J. Neuroscience* 26:3662-3666 (2006)

^{iv} L. Myers *et al.*, *JAMA*. 295:159 (2006)

^v B. D. Sites, *JAMA*. 295:159-160 (2006)

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Fetal pain perception and pain management, a review by Marc Van de Velde and others, published in *Seminars in Fetal and Neonatal Medicine*, v. 11, pp. 232-236 (2006).

“Fisk and co-workers ... provided direct evidence that premature fetuses have hormonal and hemodynamic responses to invasive stimuli. *They also showed that these responses can be blocked by analgesia.*”

“Thanks to Anand and co-workers, we know that preterm neonates have hormonal stress responses following invasive interventions. *These hormonal responses can be prevented by analgesia.*”

“*Peripheral receptors develop from the seventh gestational week. From 20 weeks gestation, peripheral receptors are present on the whole body.*” “*Development of afferent fibers connecting peripheral receptors with [pain centers in the brain] starts at 8 weeks gestation.*” [Spinothalamic] connections start to develop from 14 weeks, and are complete at 20 weeks gestation ... thalamocortical connections are present from 17 weeks gestation, and completely developed at 26-30 weeks.... *From 16 weeks gestation, pain transmission from a peripheral receptor to the cortex [consciousness centers] is possible, and certainly completely developed from 26 weeks ...*” “*It is therefore safe to assume that the fetus feels more pain than the small infant.*”

“Based on the data mentioned above, *we can safely assume that the fetus reacts to painful stimuli from 24 weeks gestation and that it is possible that this occurs from 16 weeks gestation.*”

“*Because fetal pain is a realistic problem, we must provide, or attempt to provide, adequate pain relief during every situation in which the unborn child might experience potentially painful stimuli.*” “... *successful analgesia in the fetus is achievable.*”

“*Several ways of administering analgesics to the fetus are available:*

- *transplacentally after maternal oral or [injection] administration; or*
- *directly to the fetus, using the intravenous, intramuscular, or intra-amniotic approach.*”

“During open fetal surgery under maternal general anesthesia, inhalational agents are considered to provide adequate fetal anesthesia and produce uterine relaxation essential for successful surgery. So [under *these* circumstances] additional analgesia for the fetus is unnecessary.”

“Two possible routes of administration for these [opioids and muscle relaxants] drugs are injection into the umbilical cord and intramuscular injection into the fetus. *A similar approach could be used for late termination of pregnancy: administration of analgesics directly intravenously before a lethal fetal injection of potassium chloride or lidocaine is administered.*” “[M]aternally administered remifentanyl in [very low doses] produces effective maternal sedation and fetal immobilization through transplacental passage during these [endoscopic] procedures.”

Conclusion:

“**Evidence is increasing that from the second trimester [13th – 14th week], the fetus reacts to painful stimuli and that these painful interventions might cause long-term effects. It is therefore recommended to provide adequate fetal pain relief during potentially painful procedures during in-utero life.**”

- **Fetal analgesia has to be provided as a routine during potential painful interventions.**
- **The fetal ... [painful stress response] ... system should be considered as functional from the beginning of the second trimester [13th – 14th week].”**