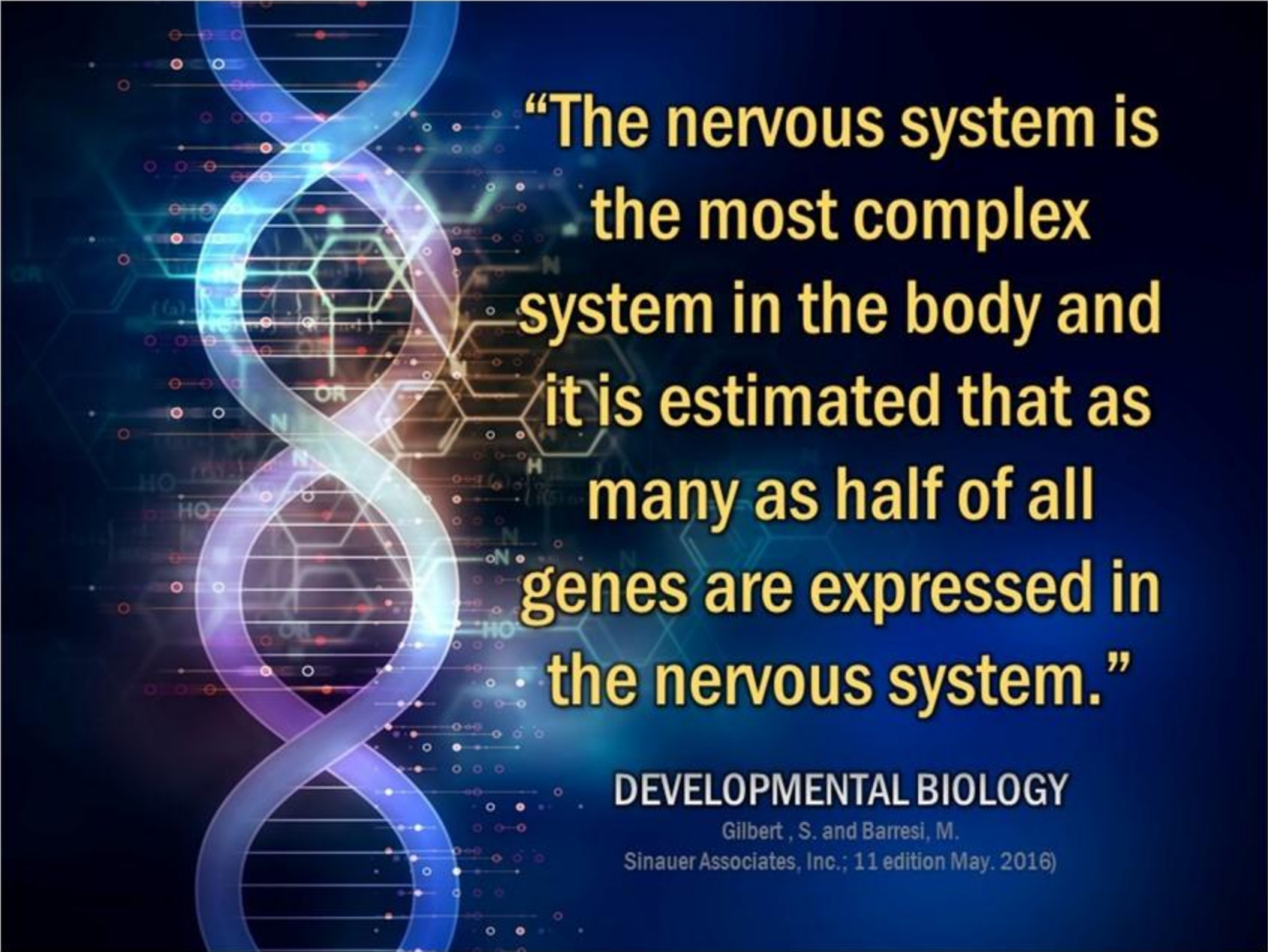


**The proper development
and function of the nervous
system is a primary key to
maximizing the human
genetic potential of health,
healing and performance.**

**Molecular Genetics in
Developmental Neurobiology**

Tsukada, Y. Japan Scientific Societies Press
Taniguchi symposia on brain sciences , Netherlands . 86





**“The nervous system is
the most complex
system in the body and
it is estimated that as
many as half of all
genes are expressed in
the nervous system.”**

DEVELOPMENTAL BIOLOGY

Gilbert, S. and Barresi, M.

Sinauer Associates, Inc.; 11 edition May, 2016)



“The intricate sequence of events leading from the earliest origins of the neural tube to the adult brain, spinal cord and peripheral nervous system is a complex of gene expression and regulation.”

DEVELOPMENTAL BIOLOGY

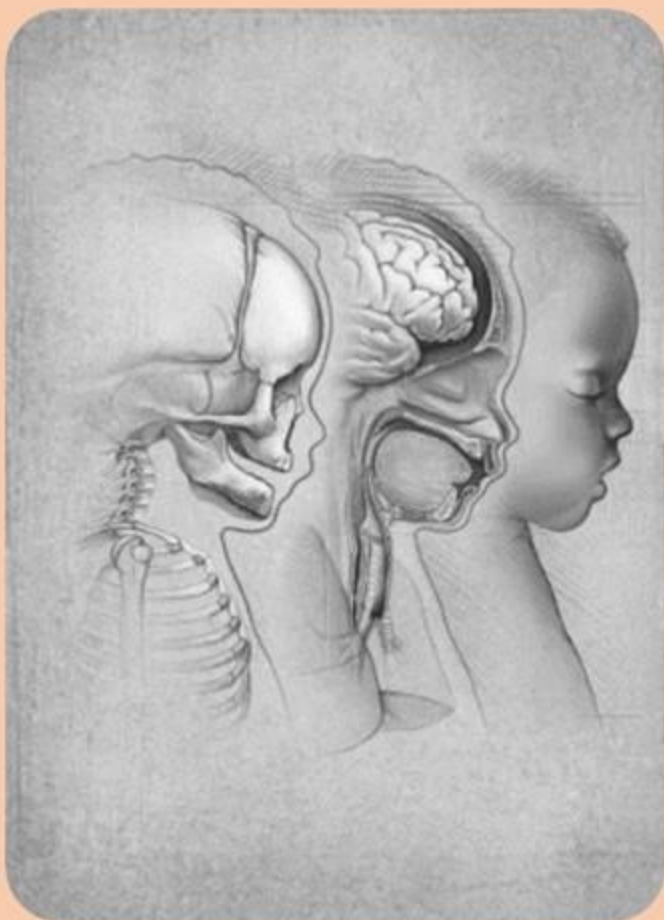
Gilbert, S. and Barresi, M.
Sinauer Associates, Inc.; 11 edition May, 2016)



**Brain development
begins within a week
of conception. At birth,
about 100 billion
neurons, or brain cells
have been produced and
are beginning to connect
with one another.**

Kostović I, Jovanov, Milosević N

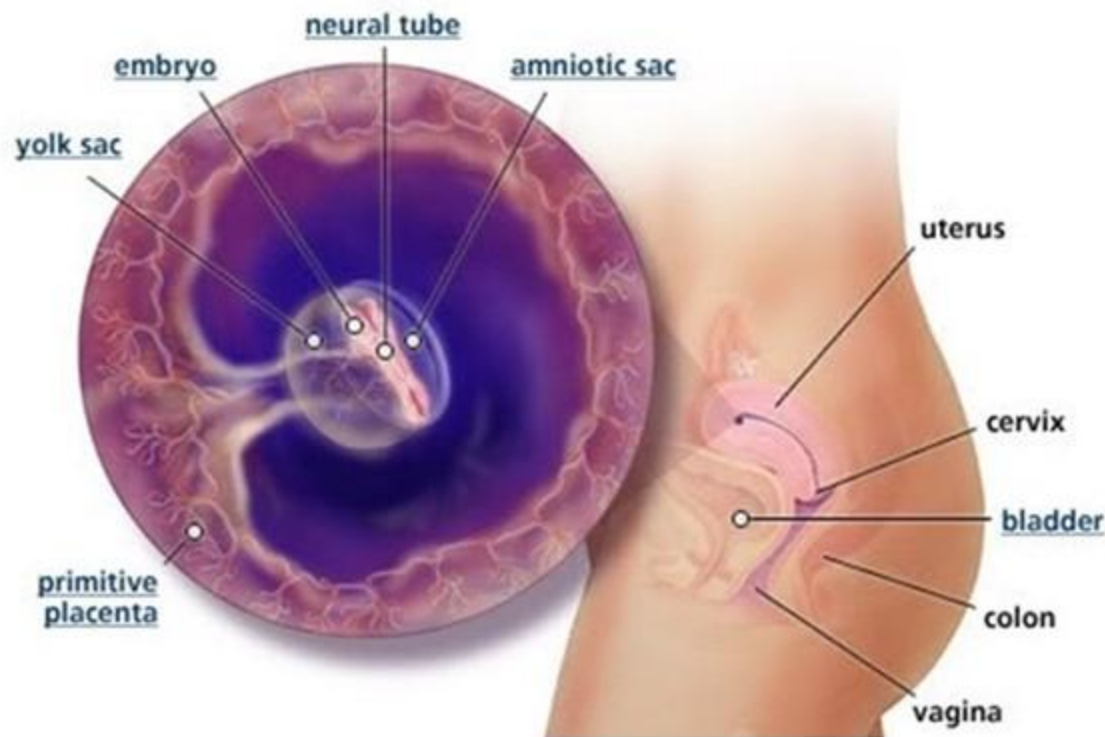
The development of cerebral connections during the first
20-45 weeks' gestation. Semin Fetal Neonatal Med.
2006 Dec; 11(6):415-22.



A mere 16 days after conception, the baby's neural plate forms (think of it as the foundation of their brain and spinal cord). It grows longer and folds onto itself, until that fold morphs into a groove, and that groove turns into the neural tube. Once the neural tube closes, at around week 6 or week 7 of pregnancy, it curves and bulges into three sections, commonly known as the forebrain, midbrain and hindbrain.

DISCOVERING THE BRAIN

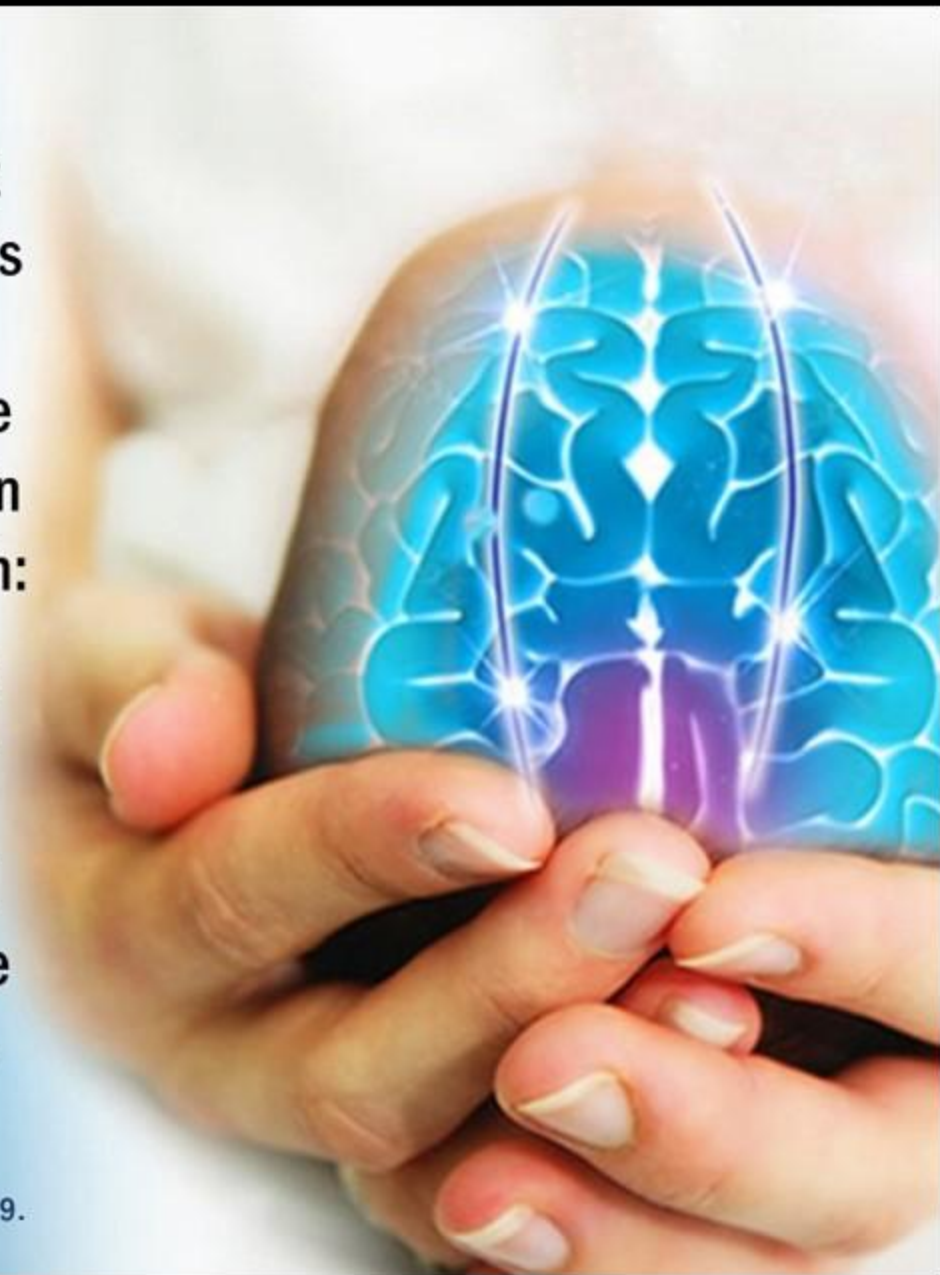
Ackerman, S. : National Academies Press (US); 1992.



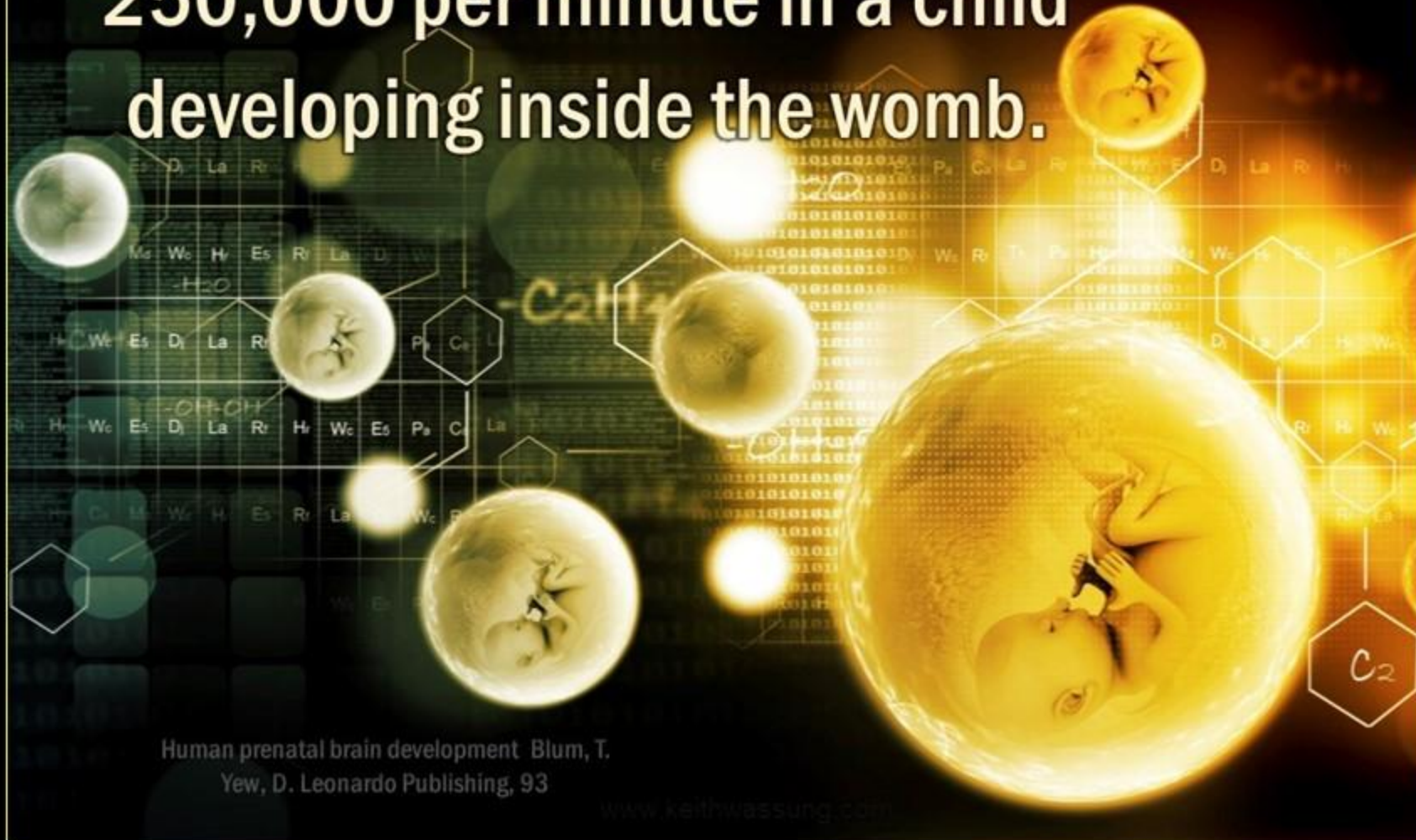
The baby's brain and spinal cord, also known as the fetal nervous system, is one of the very first systems to develop. In fact, it's making big strides before the mother even knows she is pregnant.

Just to the rear of the hindbrain sits the part that will soon turn into the baby's spinal cord. Soon, these areas bubble into those five different regions of the brain that we're most familiar with: the cerebrum, cerebellum, brain stem, pituitary gland and the hypothalamus. Of course, all of these fetal brain areas need more time to be fully up and running.

Larsen's Human Embryology
4th ed. Schoenwolf, Gary C; Larsen, William J.
Philadelphia, PA: Elsevier/Churchill Livingstone, c2009.



**Neurons grow at the rate of
250,000 per minute in a child
developing inside the womb.**



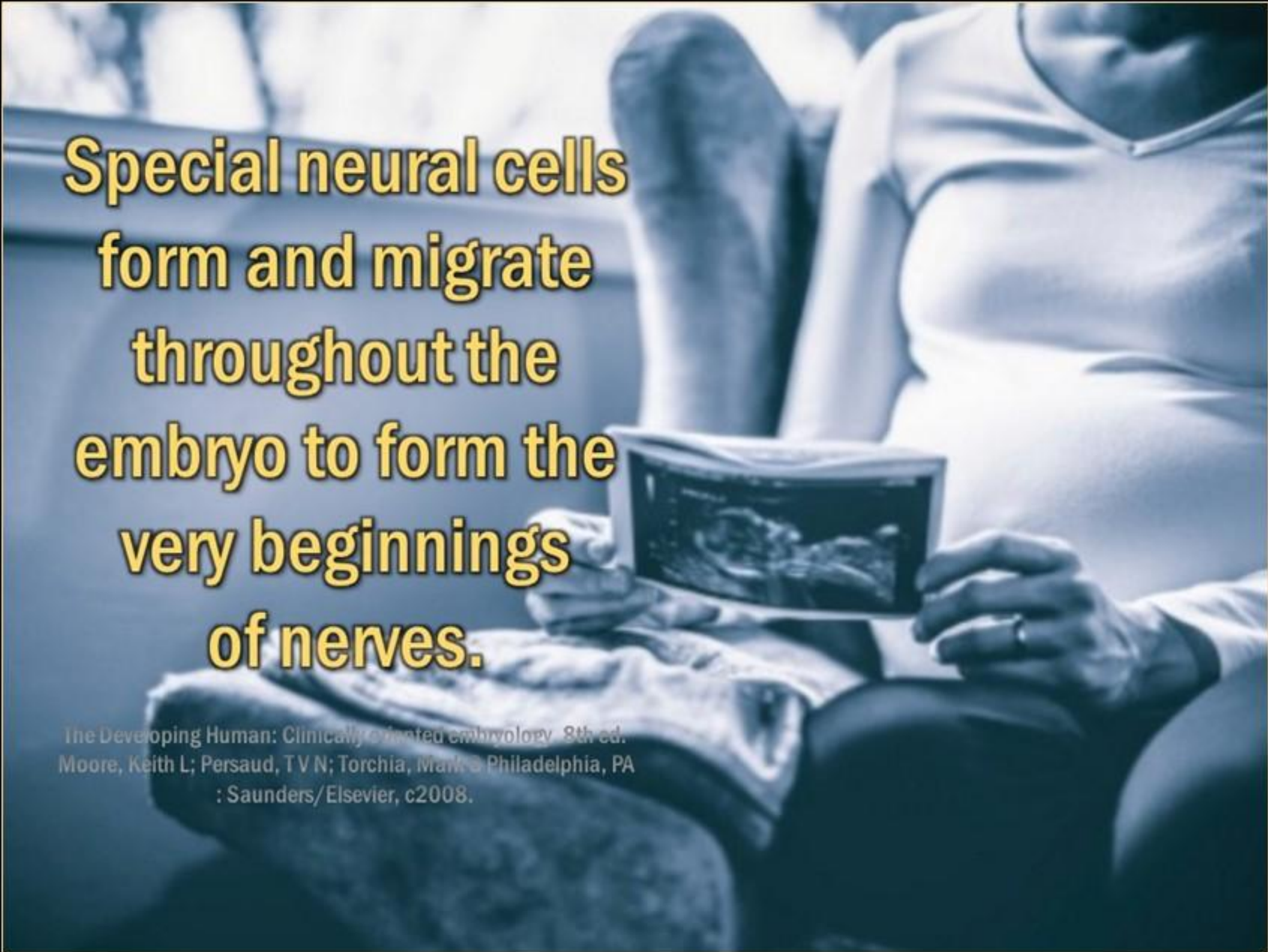
Human prenatal brain development Blum, T.
Yew, D. Leonardo Publishing, 93

www.keithwassung.com

Although they are not running at full speed, babies have developed or begun to develop all of their bodily systems before the second month of the first trimester is over. It usually happens by the eighth week after conception.

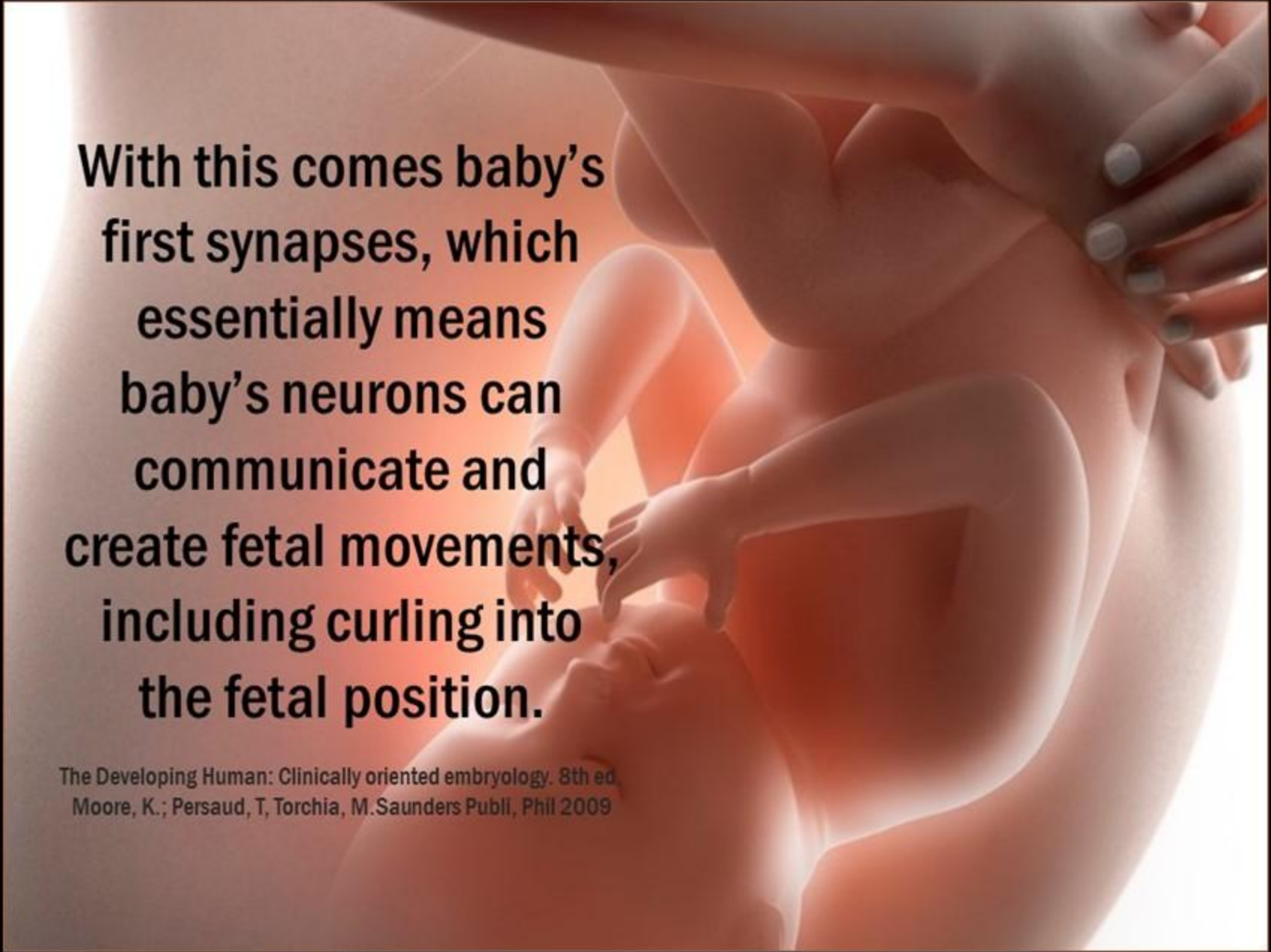
The Basics of Brain Development
Stiles, J. Jernigan, T. Neuropsychol Rev. 2010 Dec; 20(4): 327-348.





**Special neural cells
form and migrate
throughout the
embryo to form the
very beginnings
of nerves.**

The Developing Human: Clinically oriented embryology 8th ed.
Moore, Keith L; Persaud, T V N; Torchia, Mark S Philadelphia, PA
: Saunders/Elsevier, c2008.

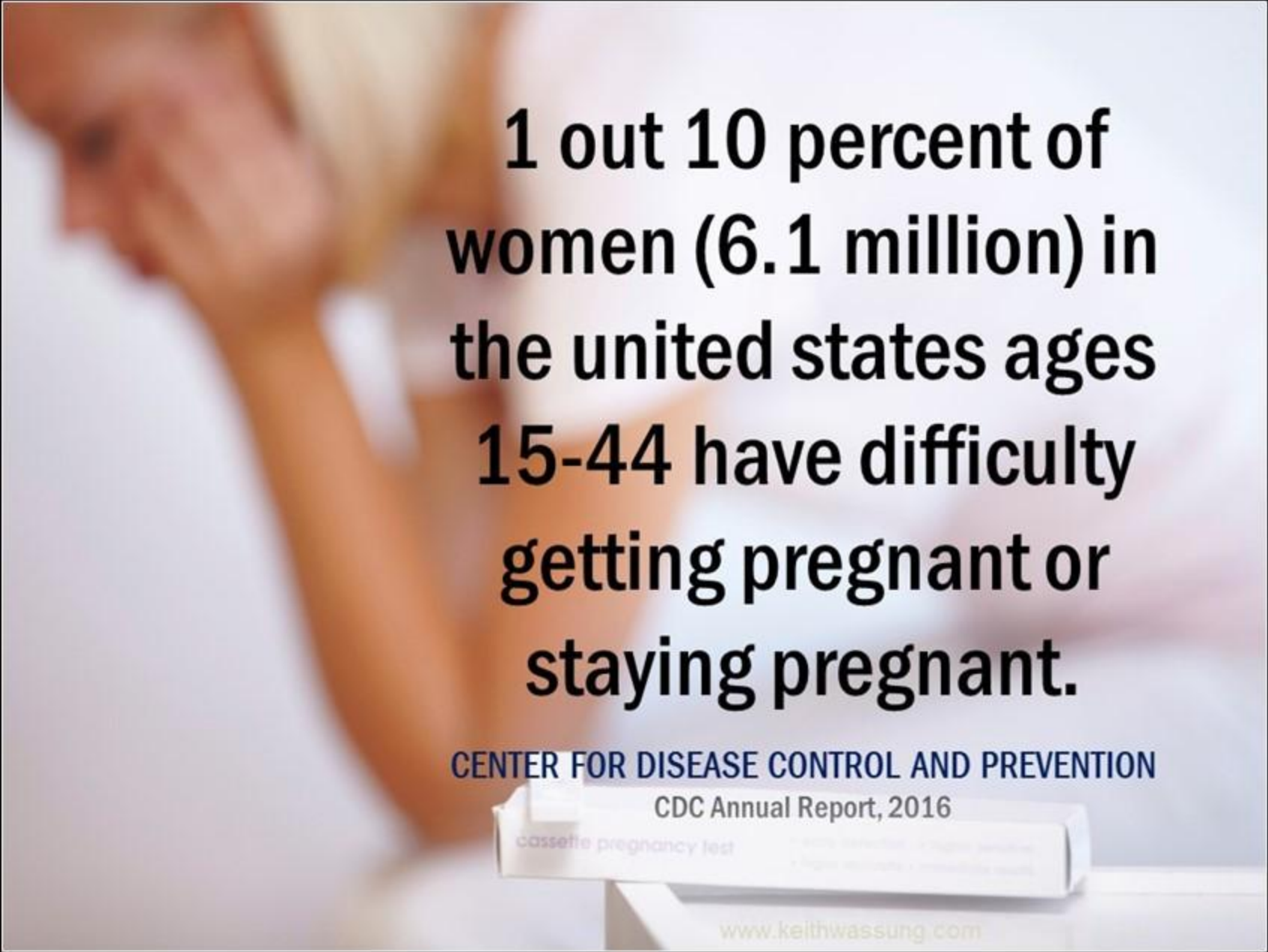


**With this comes baby's
first synapses, which
essentially means
baby's neurons can
communicate and
create fetal movements,
including curling into
the fetal position.**

The Developing Human: Clinically oriented embryology. 8th ed.
Moore, K.; Persaud, T, Torchia, M. Saunders Publi, Phil 2009



While most of the newborn's brain cells are formed during the prenatal period, the brain is not completely developed at birth. Much of the connecting of neurons and strengthening of those connections takes place after birth.



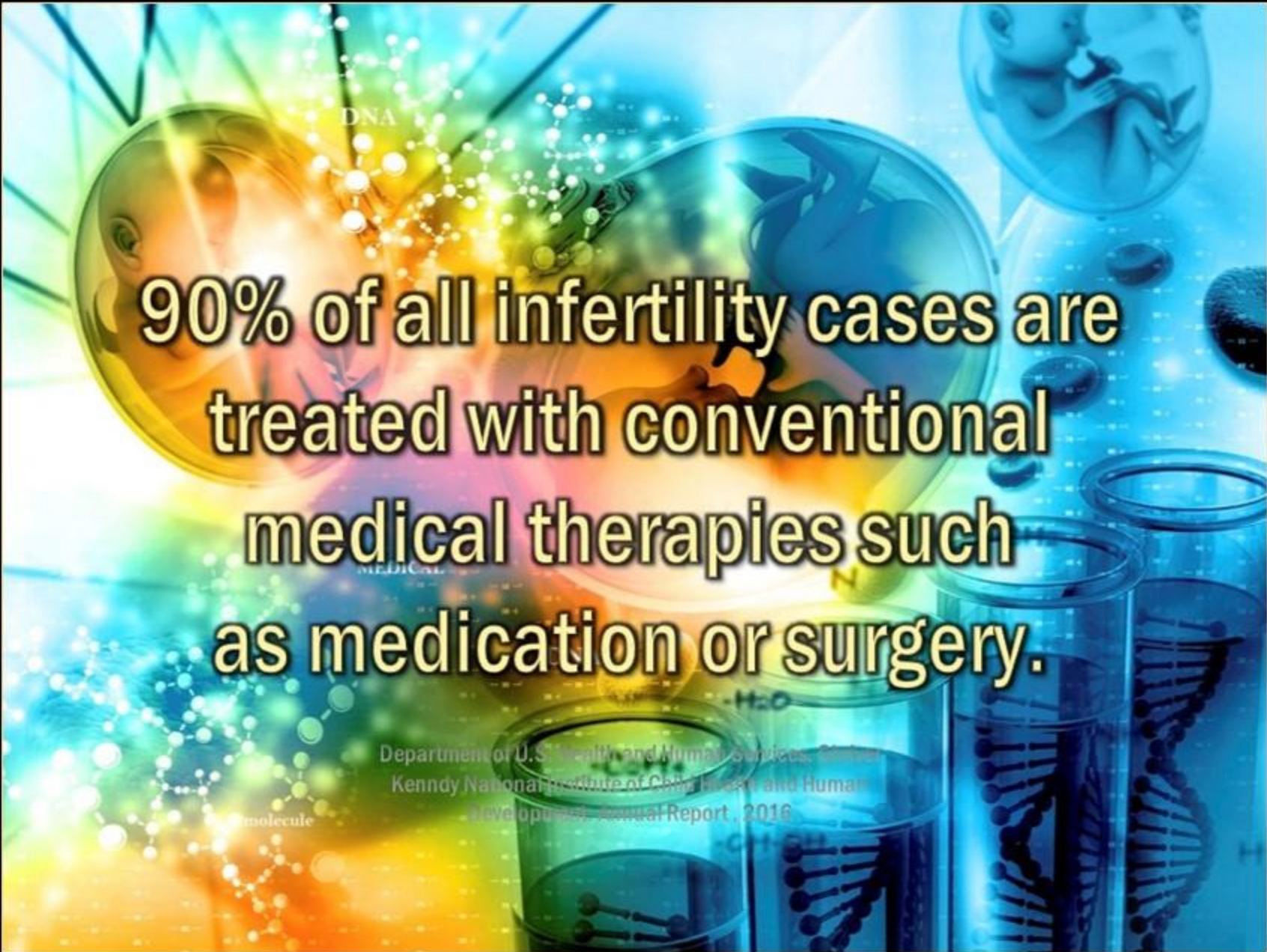
**1 out 10 percent of
women (6.1 million) in
the united states ages
15-44 have difficulty
getting pregnant or
staying pregnant.**

CENTER FOR DISEASE CONTROL AND PREVENTION

CDC Annual Report, 2016

cassette pregnancy test

www.keithwassung.com



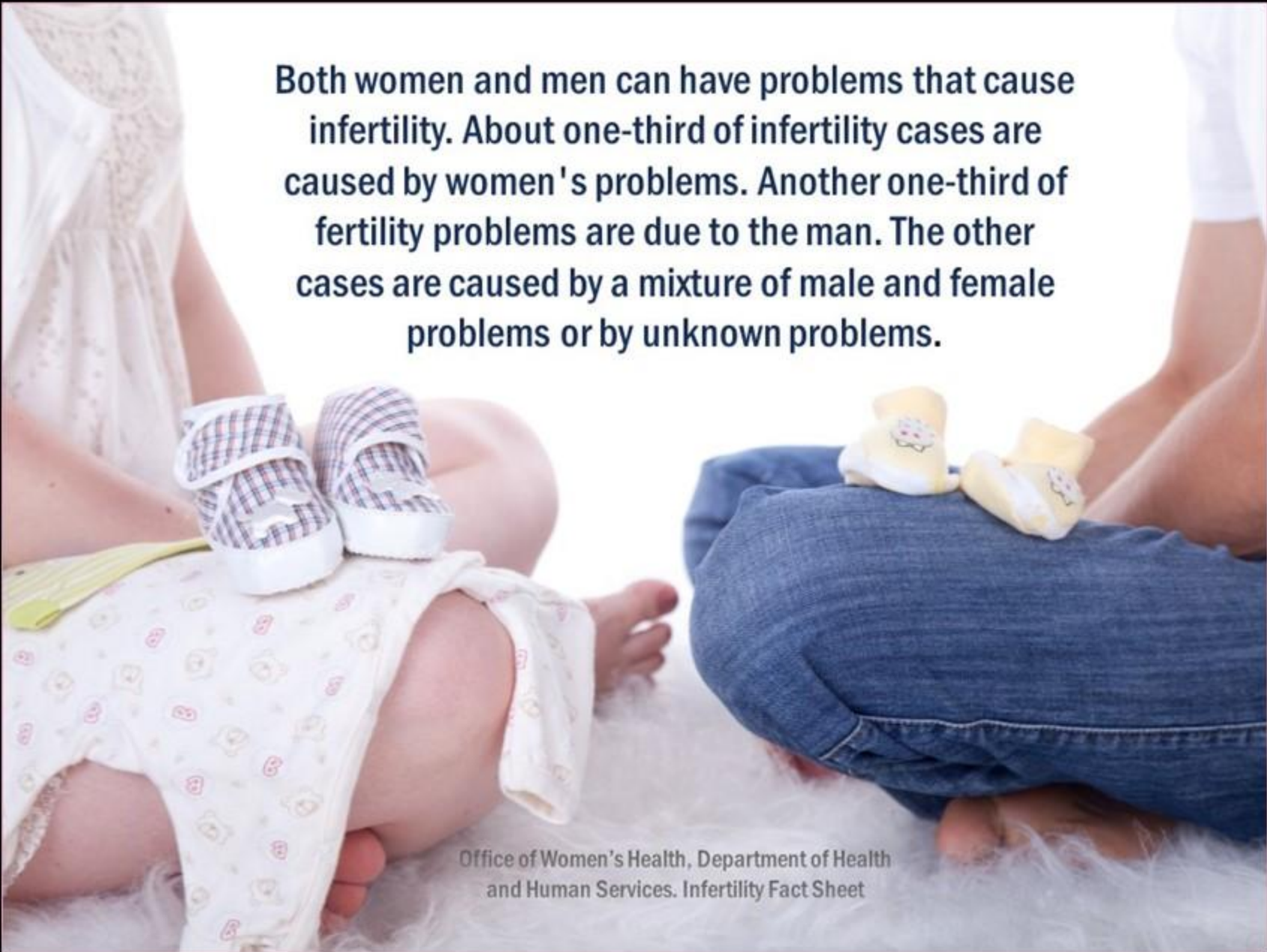
**90% of all infertility cases are
treated with conventional
medical therapies such
as medication or surgery.**

Department of U.S. Health and Human Services, Michael
Kenndy National Institute of Child Health and Human
Development, Annual Report, 2016



**A basic IVF (in vitro
fertilization) treatment
averages \$17,000 with
a success rate of less
than thirty-three percent.**

Department of U.S. Health and Human Services. Shriver
Kenndy National Institute of Child Health and Human
Development. Annual Report , 2016



Both women and men can have problems that cause infertility. About one-third of infertility cases are caused by women's problems. Another one-third of fertility problems are due to the man. The other cases are caused by a mixture of male and female problems or by unknown problems.

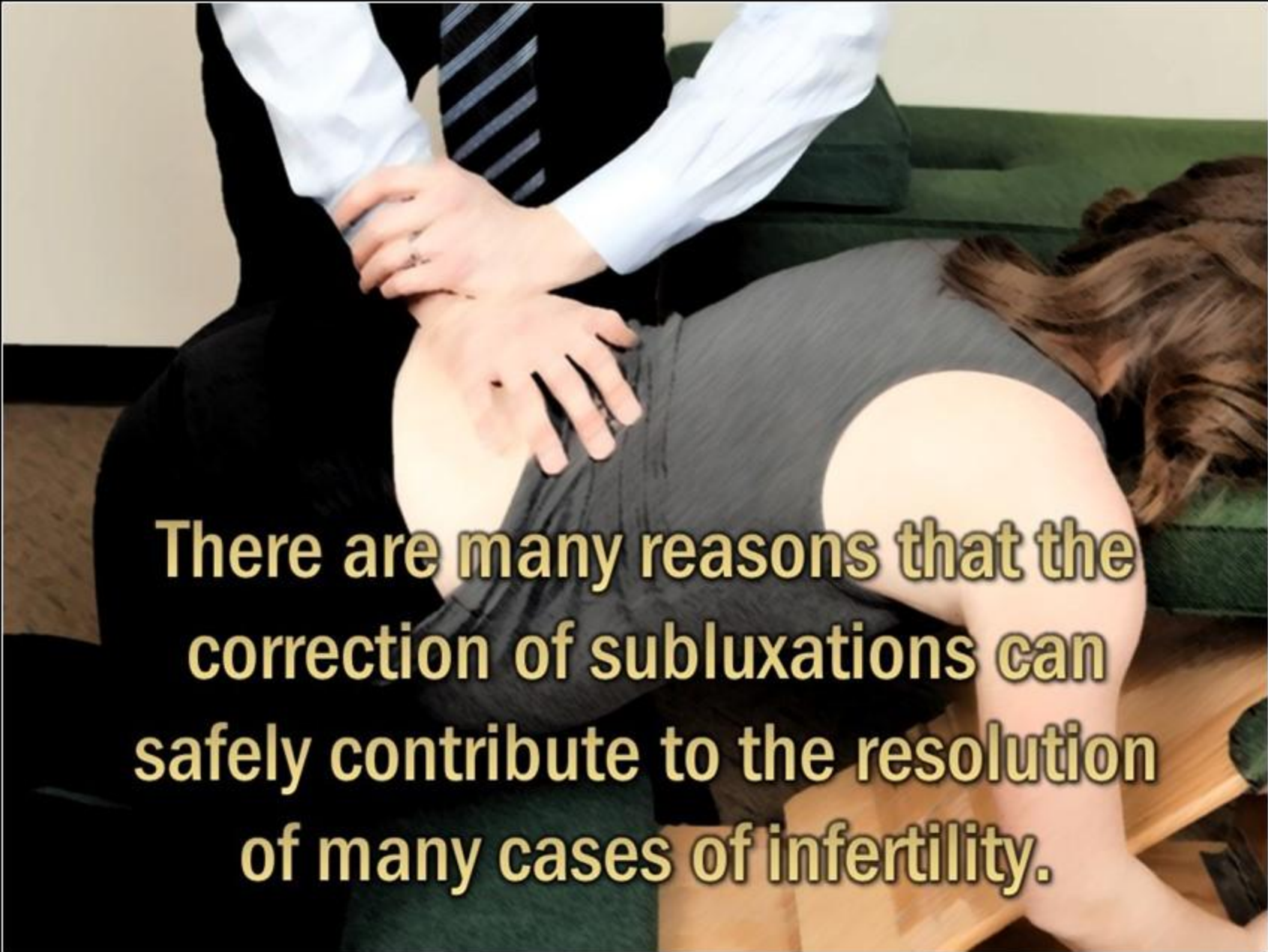
Office of Women's Health, Department of Health
and Human Services. Infertility Fact Sheet



The science of Chiropractic is founded on the premise that a properly **functioning nervous system** is the foundation of health, and that the **structural integrity** of the **spinal column** must be maintained in order to facilitate optimal nervous system transmission and communication.

**Chiropractic care
during pregnancy
is an essential
ingredient in
making prenatal
care choices.**



A photograph showing a chiropractor in a white shirt and striped tie performing a manual adjustment on a woman's lower back. The woman is lying on her side on a green chiropractic table. The chiropractor's hands are positioned on the woman's lumbar spine, with one hand supporting the lower back and the other applying a specific adjustment. The text is overlaid on the lower half of the image.

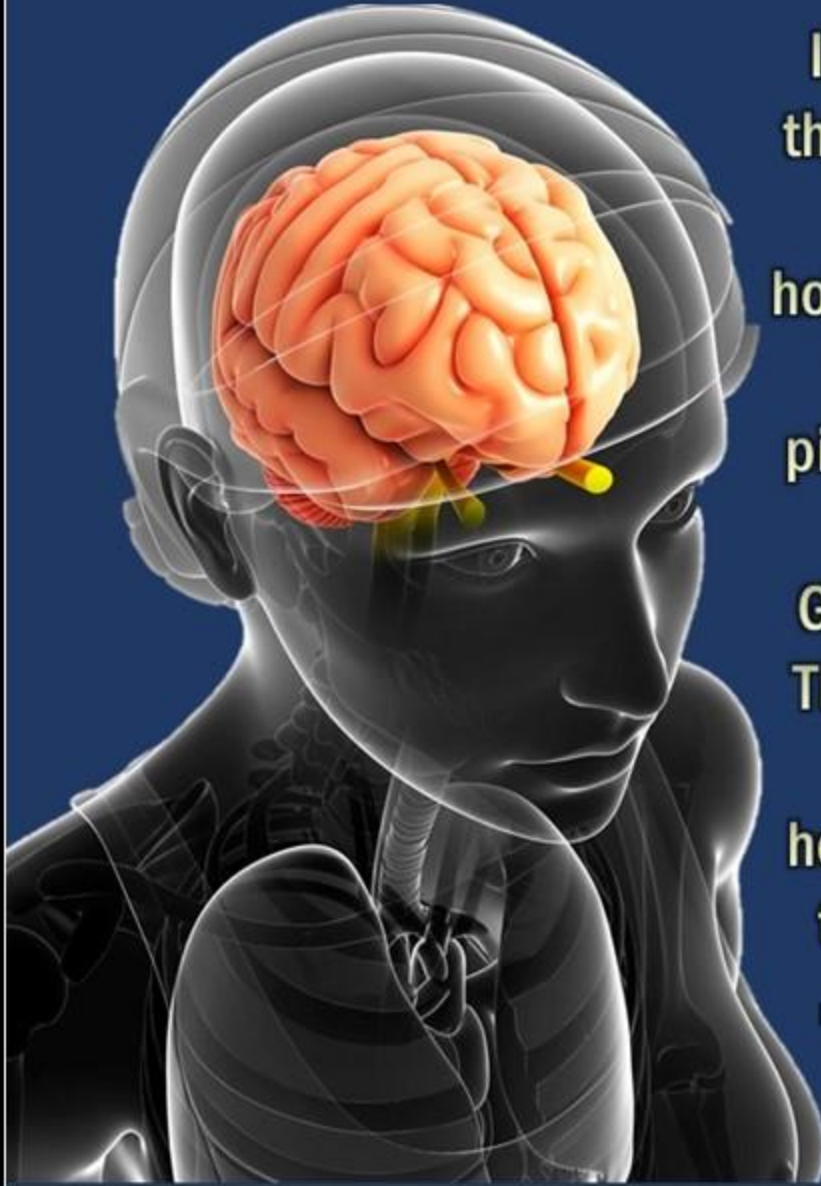
**There are many reasons that the
correction of subluxations can
safely contribute to the resolution
of many cases of infertility.**



**First of all, the uterus
and the ovaries are
directly innervated by
the T12 nerve roots,
while the cervix and
structures below it
are innervated by
the S2 nerve roots.**

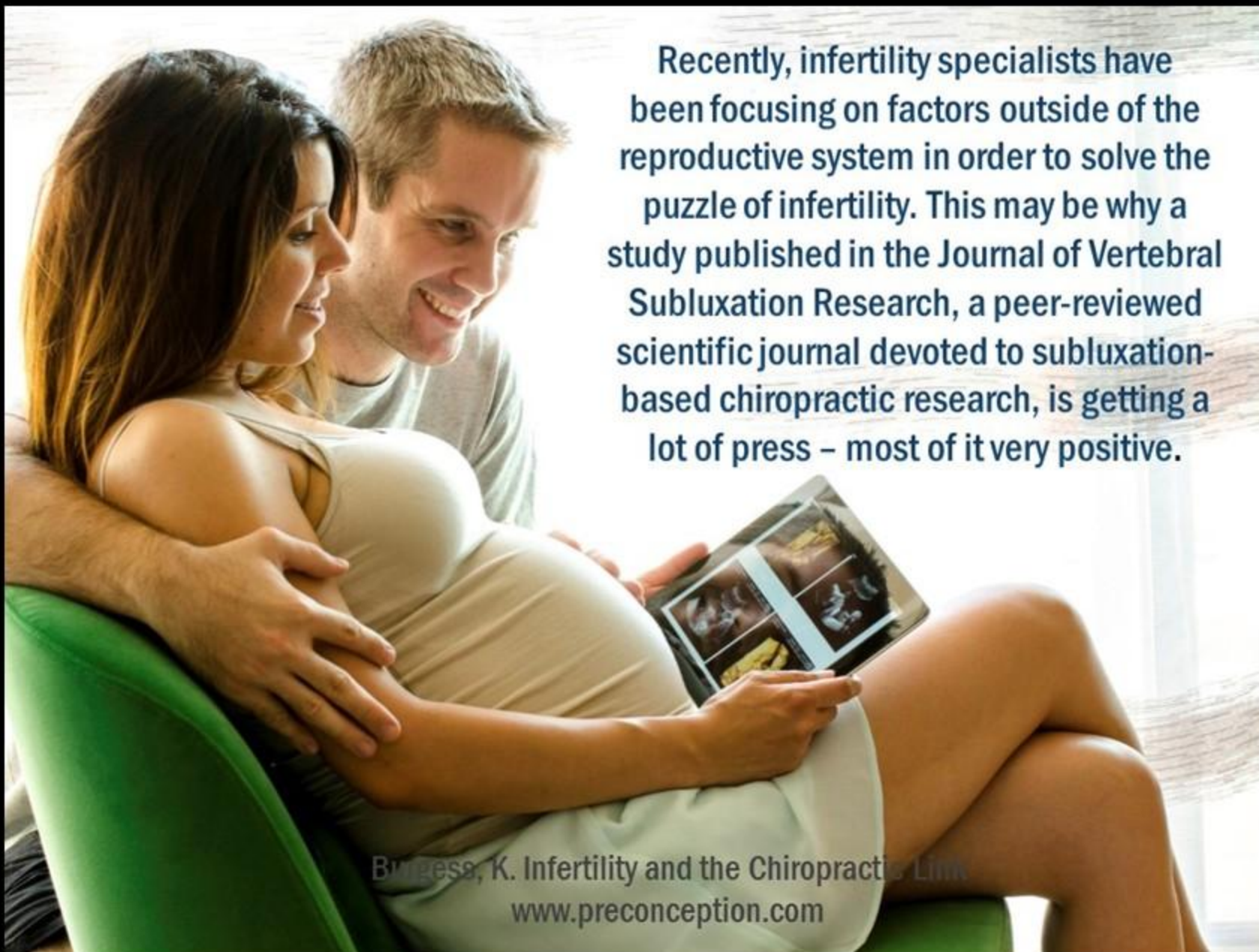
Neurology and Pregnancy: Clinical Management Marsh, M.
Lina Nashef, N. Brex, P Mar 23, 2012 CRC Press

www.keithwassung.com



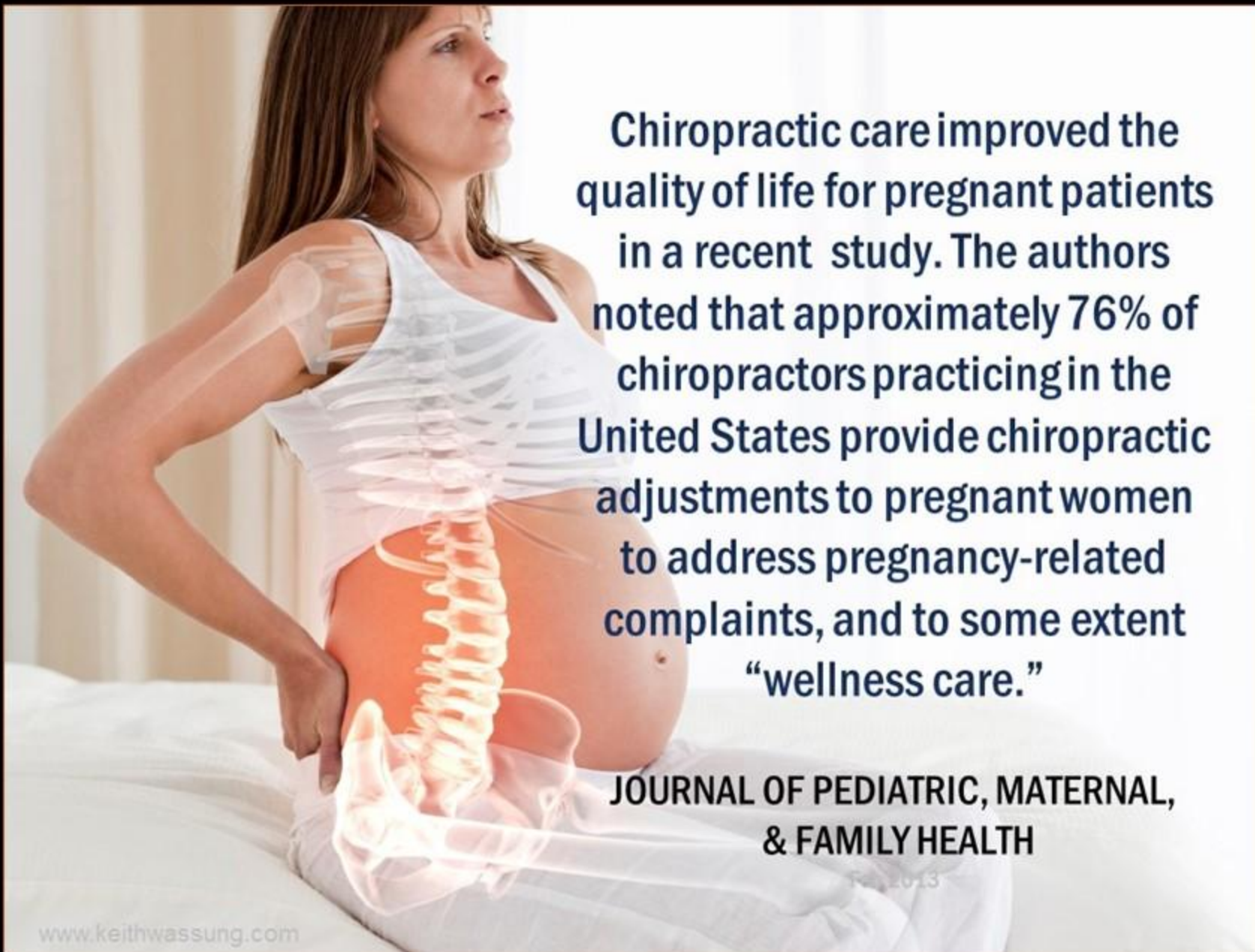
In addition to the direct influence the nervous system displays, it also controls the distribution of hormones to reproductive structures through the hypothalamus and pituitary glands. The hypothalamus regulates the secretion of Gonadotropin-releasing hormone. This in turn determines the relative amounts of follicle stimulating hormone and leuteinizing hormone that the pituitary gland secretes.

Neurology and Pregnancy: Clinical Management Marsh, M. Lina
Nashef, N. Brex, P Mar 23, 2012 CRC Press



Recently, infertility specialists have been focusing on factors outside of the reproductive system in order to solve the puzzle of infertility. This may be why a study published in the Journal of Vertebral Subluxation Research, a peer-reviewed scientific journal devoted to subluxation-based chiropractic research, is getting a lot of press – most of it very positive.

Burgess, K. Infertility and the Chiropractic Link
www.preconception.com



Chiropractic care improved the quality of life for pregnant patients in a recent study. The authors noted that approximately 76% of chiropractors practicing in the United States provide chiropractic adjustments to pregnant women to address pregnancy-related complaints, and to some extent “wellness care.”

JOURNAL OF PEDIATRIC, MATERNAL,
& FAMILY HEALTH

Feb 2013

www.keithwassung.com

Dr. John Ferguson

518.383.5595

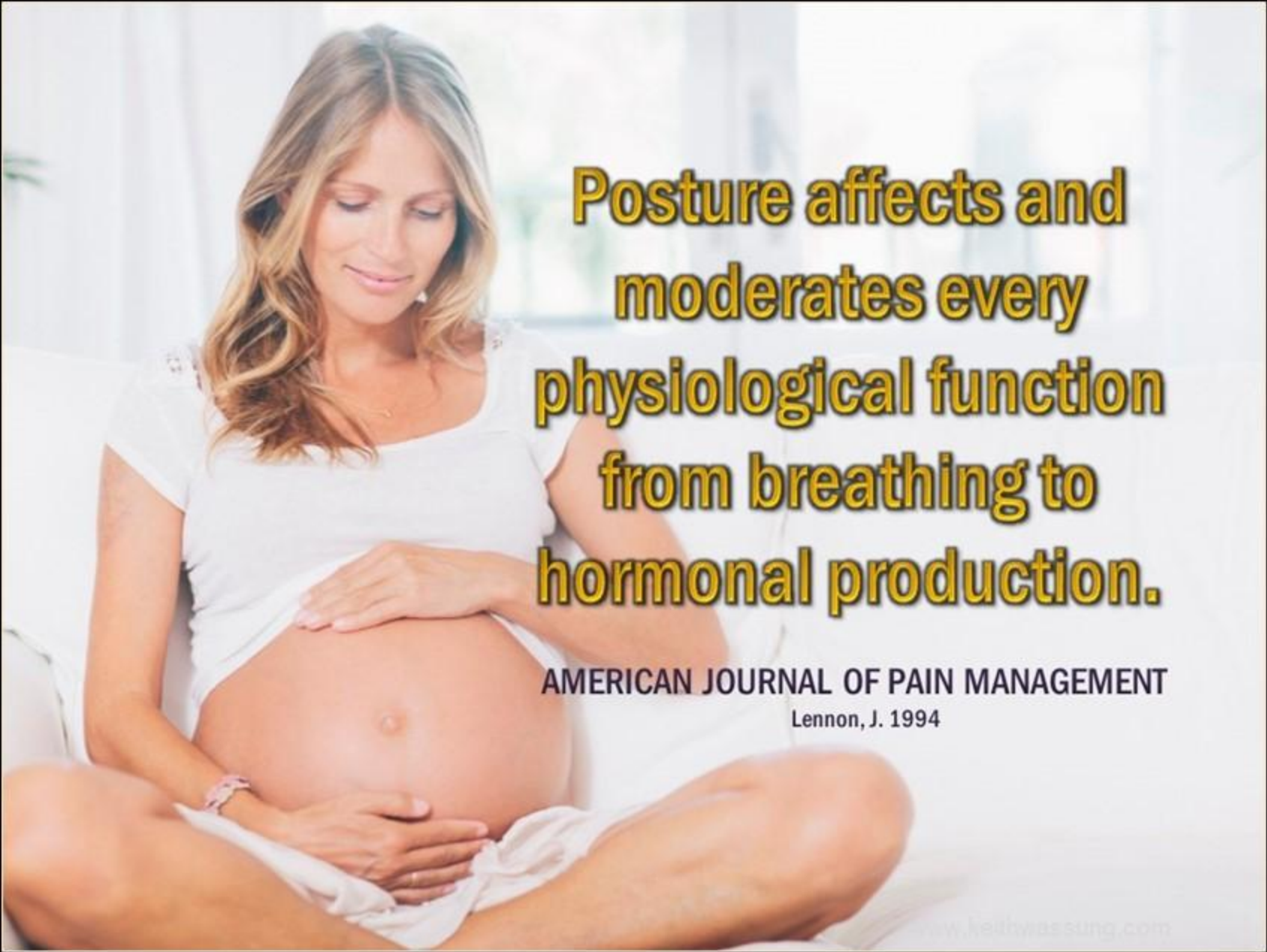
www.ForLifetimeWellness.com

**“Chiropractic for pregnancy,
you ask? But, your OB/GYN
has never mentioned it, your
midwife has never suggested
it. You should know that
mounting research is saying
“well, they should.”**

www.earthmother.org



www.keithwassung.com

A pregnant woman with long, wavy blonde hair is sitting on a white couch. She is wearing a white short-sleeved top and white shorts. She is gently holding her pregnant belly with both hands. The background is a bright, out-of-focus indoor setting with large windows.

**Posture affects and
moderates every
physiological function
from breathing to
hormonal production.**

AMERICAN JOURNAL OF PAIN MANAGEMENT

Lennon, J. 1994

www.healthywomens.com

“The supine lithotomy position is the basis for most of the intervention that is routine in modern obstetrical practice. It has effectively deprived women of all control over their childbirth experience. It has also made having babies infinitely more difficult, perilous, and painful, and provided obstetricians with countless seemingly rational reasons to come to the mother’s aid.”

Robert Mendelsohn, M.D.

MalePractice:How Doctors Manipulate Women.
Contemporary Books, 1982



www.healthwars.org



**Dr. Irvin Henderson, member of
the American Medical
Association Board of Trustees,
studied the effect of Chiropractic
adjustments on labor and
delivery, reporting that women
who received chiropractic
adjustments in their third
trimester were able to carry
and deliver their child with
much more comfort.**

Henderson I. American Medical Association records released in 1987
during trial in U.S. District Court Northern Illinois Eastern Division, No.
76 C 3777, May, 1987
www.kevinwessing.com



The implementation of chiropractic care as part of the treatment protocol for the pregnant patient may reduce the likelihood of in utero constraint and its associated risks after parturition. Such care may also prevent or reduce the incidence of common prenatal conditions seen with neurologic and physiological involvement postpartum. Continued chiropractic care may also be beneficial in assisting proper restoration of normal spinal biomechanics.

Howe C.A. Scientific ramification for producing pre-natal and neonate chiropractic care. Am Chiropr. 1993;15(3):20-23.

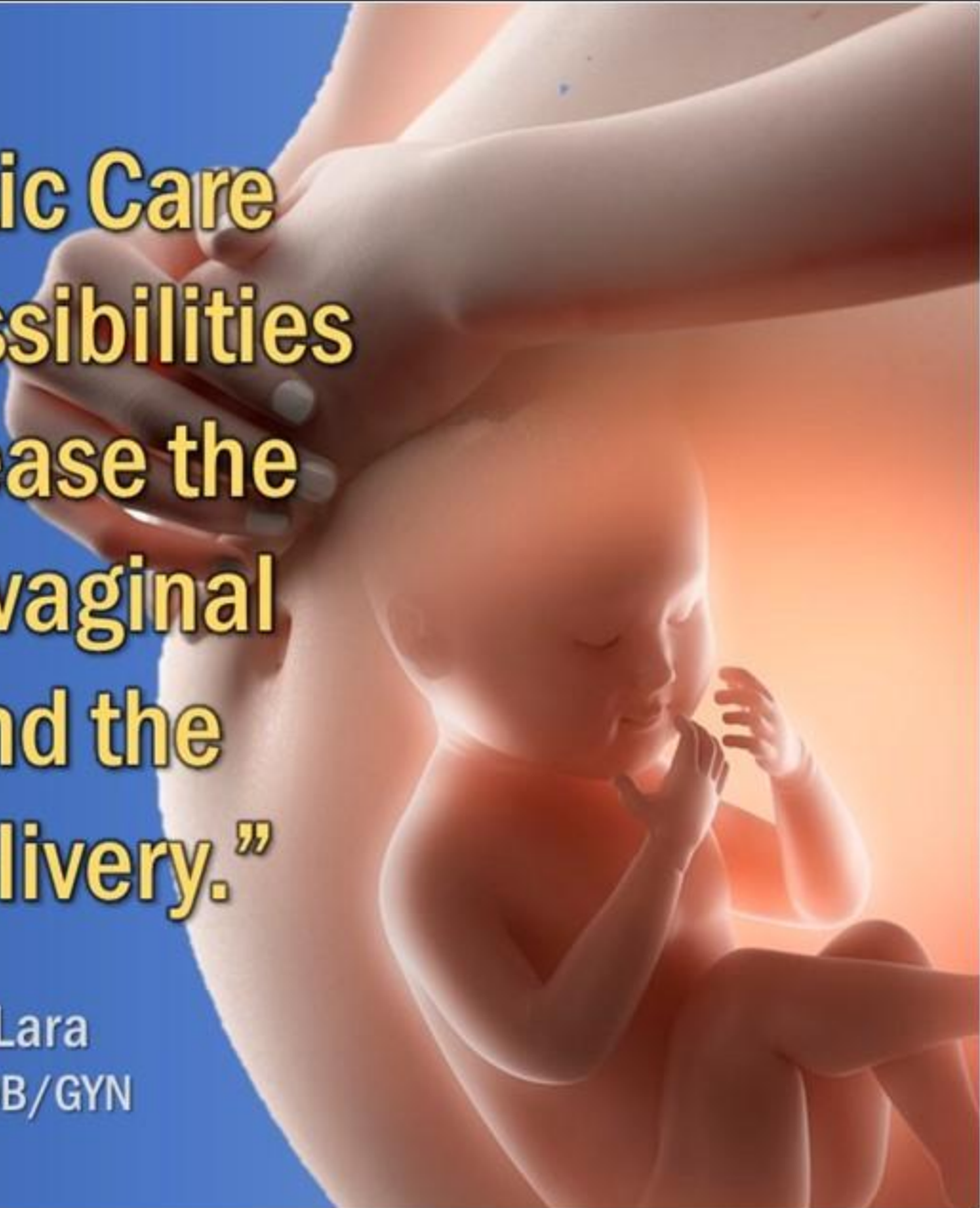
www.keithwassung.com

A close-up photograph of a pregnant woman's bare belly, which is the central focus on the right side of the image. To the left of the belly, there is a medical chart with a grid and a line graph, likely representing fetal heart rate or similar data. The background is dark, making the light-colored belly and chart stand out.

**57% of their nurse-
midwife responders
recommended
chiropractic to their
pregnant patients to
address pregnancy
related issues.**

Mullin, L., Alcantara J., Barton D., Dever L. (2011) Attitudes and Views on Chiropractic: A Survey of United States Midwives, Complementary Therapies in Clinical Practice 17 (2011) 135-140

www.KeithWassung.com



**“Chiropractic Care
offers the possibilities
to help increase the
chances of vaginal
delivery and the
safety of delivery.”**

Dr. Adrienne Lara
Harvard Trained OB/GYN