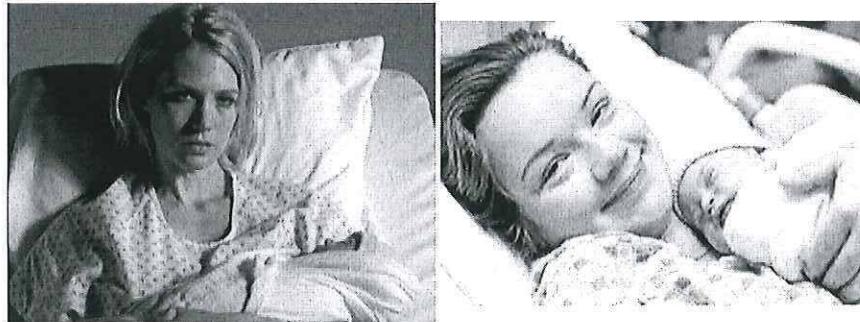


## Natural Birth: Back to Basics

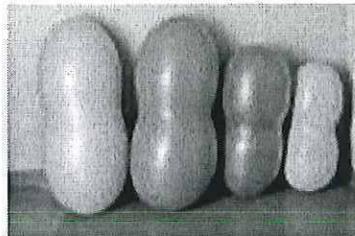
Tuesday, June 02, 2015

7:30 am to 8:00 am	Registration and Continental Breakfast
8:00 am to 10:00 am	Caring for the Natural Birth Patient - Sarah Maguire RN, NP-C, CNM
10:00 am to 10:15 am	Break
* 10:15 am to 11:30 am	Supporting Natural Labor - Marla Vogt-Roberts, RN, MSN, CNM and Emily Dove-Meadows, RN, MSN, CNM
11:30 am to 12:30 pm	Lunch
12:30 pm to 1:30 pm	Post Partum Mood Disorders - Kelly C. Ryan, LMSW
1:30 pm to 2:45 pm	The Influence of Fear on Normal Physiologic Childbirth - Susan Cencer, BSN, RNC, LCCE, HBCE
2:45 pm to 3:00 pm	Break
3:00 pm to 4:00 pm	Aromatherapy and Massage - Krystina Panek, BSN, RN, C-EFM
4:00 pm to 4:10 pm	Wrap-up and Evaluation

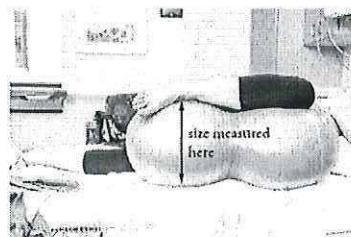
**"How will she remember this?"**



## Peanut Ball Sizes



70cm Large Yellow Used to Sit On  
60 cm Blue Obese patients  
50cm Red for Most patients  
40cm Small yellow for Small women



How to Measure

## Peanut Balls and Birth Balls

Peanut Balls with Epidurals n=200

First stage labor time: 258.8 minutes vs control had 341.9 minutes, difference of 90 minutes (p=0.006)

Shorter Second stage of labor in PB use 22.3 mins vs control

Fewer vacuum assisted deliveries: 6.7 with use of the PB vs 9.7 in the control.

Fewer forceps deliveries: 1.9 with PB vs 2.2 in the control

## Peanut Ball Implications for Nursing Practice

The use of the Peanut Ball during labor for patient with an epidural, as compared with standard nursing intervention, did significantly reduce the length of labor, without adverse neonatal outcomes

Decrease the Length of Labor with the Use of a Labor Ball with Patients That receive An Epidural. Tussey, C and Bostios, June 2011

## Peanut Ball and Length of Labor

Unpublished Study of 218 women

With Epidurals:

Decreased First stage of 102 minutes

Decreased Second stage of 27.6 minutes

Without epidurals:

Decreased First stage 108.5 minutes

Decreased Second stage 29.2 minutes

Length of labor reduced through use of peanut ball: A retrospective analysis.  
Grant, Craig and Rice 2014

## Peanut Ball to Decrease Length of Labor

Inclusion Criteria: Nullips and Multips, Term, Cephalic.

Exclusion Criteria: Less than 37 weeks, Scheduled Cesareans.

- Study Group: n=134 women started the use of the Peanut ball after epidural placement.
- N=31 women excluded due to primary c/s
- Used right and left lateral or semi-fowler. Position changes every 1-2 hours.
- Labored down in second stage.
- Control group: 93 women standard care practices

Results: Length of First stage of labor not statistically different (487 vs 443 minutes)

## Peanut Ball and Length of Labor

- Second stage by 22.3 minutes in Peanut Ball 75 vs 57 minutes.
- Pushing time due to laboring down by 22 minutes in Peanut Ball use
- Vaginal deliveries with Laboring down vs immediate pushing (61.5% vs 56.9%)
- Mean time used with Ball was 327 minutes. Minimum 5 minutes. Maximum 1190 minutes.

Payton, C. The Use of the Peanut Ball to Decrease the First and Second Stage of Labor  
Capstone Project, Bellarmine University.

## Peanut Ball and Patient Satisfaction

How did using the Peanut Ball enhance your labor and delivery experience?  
(n=118)

- Provided comfort 42 (36%)
- Facilitated progress of labor 75 (64%)
- Helped with positioning 15 (13%)
- Helped baby move 4 (3%)
- Helped my pelvis open 4 (3%)
- Avoided a cesarean section 2 (2%)
- Not sure 3 (3%)
- No time to answer questions 4 (3%)
- Wasn't most comfortable but it helped me progress 1 (0.9%)

## Peanut Ball and Patient Satisfaction

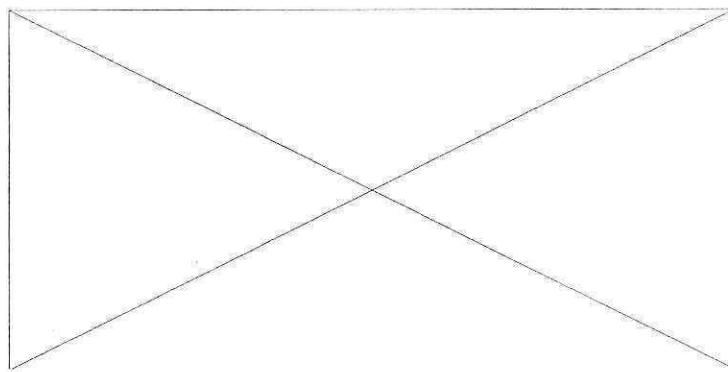
What advice would you give other expectant parents regarding use of the Peanut Ball?

Recommend Use 84 (71%)

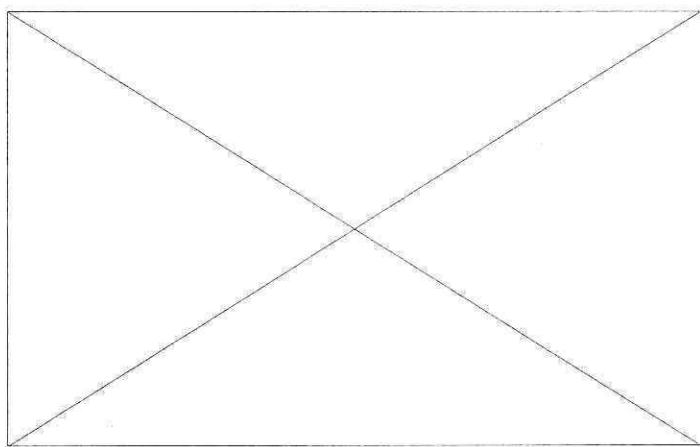
No advice 18 (15%)

Payton, C. Use of the Peanut Ball to Decrease the First and Second Stages of Labor.  
Capstone Project. Bellamine University 5-9-2015

## Using a Peanut Ball



## Birth Ball



## Maternal Positions for Labor

Cochrane 2013  
255 Studies/n=5218 women

Objectives: To assess the effects of encouraging women to assume different upright positions versus recumbent positions during the first stage of labor

Maternal Positions and Mobility During First Stage, Lawerence, Lewis, Hofmeyr, and Styles, October 2013

## Maternal Positions for Labor

Comparison 1 :  
Upright and ambulant positions versus  
recumbent positions and bed care

Comparison 2:  
Upright and ambulant positions versus  
recumbent positions and bed care  
with epidural

## Maternal Positions for Labor

Primary Outcomes:

Shorter duration of labor if upright

Women were:  
nulliparous vs. multiparous  
spontaneous vs. IOL  
sitting vs. recumbent  
walking vs. recumbent  
sitting, standing, squatting, kneeling or  
walking vs. recumbent or supine only

## Maternal Positions for Labor

### Primary Outcomes:

More likely to have vaginal birth if upright  
walking vs. recumbent  
sitting, standing, kneeling vs. recumbent

Less likely to have operative birth  
sitting vs. recumbent  
walking vs. recumbent  
sitting, standing, squatting, kneeling vs.  
recumbent

## Maternal Positions for Labor

### Primary Outcomes

Less likely to have a Cesarean birth if upright  
walking vs. recumbent

### Fetal/Neonatal Outcomes

Less likely to have NICU admission if mother  
is upright

## Maternal Positions for Labor

### Secondary Outcomes:

1. Less likely to have an epidural if upright.
2. Lower pain scores if upright.
3. BUT More anxiety for nulliparous women if upright.

However this outcome is only from 1 study of 206 women.

## Maternal Positions for Labor

### Comparison 2:

Upright and ambulant positions versus recumbent positions and bed care **with epidural**

More likely to have operative vaginal birth if multiparous and upright (subgroup analysis: parity only).

## Second Stage Positions

22 included trials (7280 women) methodological quality was variable

IN ALL WOMEN:

- Non-significant reduction in duration of second stage in the upright group
- Significant reduction in assisted deliveries
- Reduction in episiotomies
- Reduction in abnormal fetal heart rate pattern
- Increase estimated blood loss greater than 500 ml
- Increase second degree perineal tears

Position in the second stage of labour for women without epidural anaesthesia by Gupta, Hofmeyr, and Shehmar

## Second Stage Positions

IN PRIMIGRAVIDAS:

- Non-significant reduction in duration of second stage of labor (nine trials: mean 3.24 minutes, 95% CI 1.53 to 4.95 minutes)
- This reduction was largely due to women allocated to the use of the birth cushion.

Position in the second stage of labour for women without epidural anaesthesia by Gupta, Hofmeyr, and Shehmar

## Second Stage Positions

### Authors' conclusions

Several possible benefits for upright posture in women without epidural.

Possibility of increased risk of blood loss greater than 500 mL.

Until such time as the benefits and risks of various delivery positions are estimated with greater certainty, when methodologically stringent data from trials are available, women should be allowed to make choices about the birth positions in which they might wish to assume for birth of their babies.

Position in the second stage of labour for women without epidural anaesthesia by Gupta, Hofmeyr, and Shehmar

## Fetal Malposition

- N=2794 women
- 100 women four different postures (four groups of 20 women)
- Control group of 20 women

#### Findings:

- Lateral or posterior position of the presenting part of the fetus was *less likely to persist following 10 minutes* in the hands and knees position compared to a sitting position ( relative risk (RR) 0.26, 95% confidence interval (CI) 0.18 to 0.38).
- 2547 women advised to assume the hands and knees posture for 10 minutes twice daily in the last weeks of pregnancy had *no effect on the baby's position at delivery* or any of the other pregnancy outcomes measured

Hands and knees posture in late pregnancy or labour for fetal malposition (lateral or posterior) Authors:Hunter, Hofmeyr and Kulier. July 2007

# Pearls and Baubles to Facilitate Spontaneous Birth

Emily Dove-Medows, CNM  
Marla Vogt-Roberts, CNM

## PEARLS OF MIDWIFERY



Midwife  
Means  
“With Woman”

## PEARLS OF MIDWIFERY

### The Midwifery Model of Care

- Recognizes the woman as a unique individual in the context of her family and community
- Supports and protects the normal physiologic process of labor and birth
- Establishes the woman as an active partner in her own care

Rooks, 1999

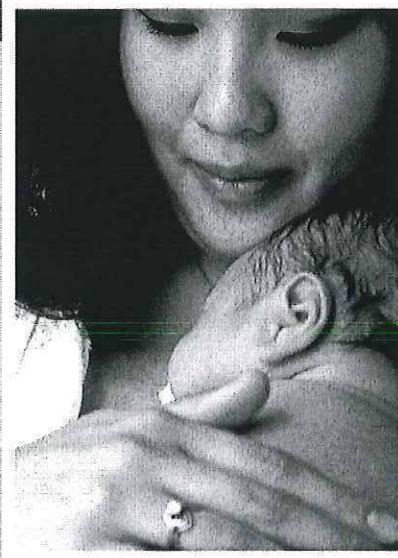
Copyright © 2004 American College of Nurse-Midwives Inc. All rights reserved.



## PEARLS OF MIDWIFERY

### Women

- Have the innate capacity to give birth
- Remember their birth experiences for their entire lives



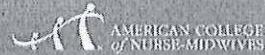
Copyright © 2004 American College of Nurse-Midwives Inc. All rights reserved.



## PEARLS OF MIDWIFERY

Oral nutrition in labor  
is safe and optimizes  
outcomes.

Copyright © 2014 American College of Nurse-Midwives Inc. All Rights Reserved.



## PEARLS OF MIDWIFERY

### The Evidence

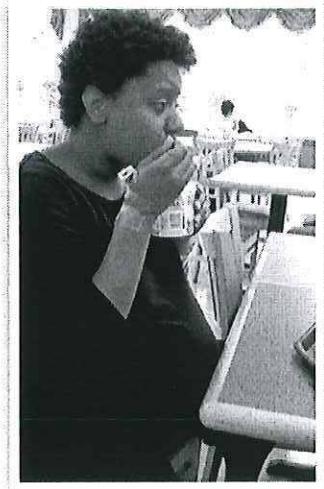
- IV fluids do not improve birth outcomes.
- Fasting in labor increases gastric acid production.
- Risk of aspiration during general anesthesia has significantly decreased.

ACNM, 2008; ACOG, 2009; Singota, Trenner, & Gyte, 2010

Copyright © 2014 American College of Nurse-Midwives Inc. All Rights Reserved.



## PEARLS OF MIDWIFERY



### Practical Application

#### Food and clear fluids for low-risk women

- provide hydration and nutrition
- give comfort

#### IV fluids reserved for women who are

- at high risk for complications
- unable to maintain adequate oral intake in preterm labor to diminish contractions

#### Heparin lock — intermittent IV access (GBS prophylaxis)



## PEARLS OF MIDWIFERY



**Ambulation and freedom of movement in labor are safe, are more satisfying for women, and facilitate the progress of labor.**



## PEARLS OF MIDWIFERY

### Offer use of non-pharmacologic methods of pain relief

- Ambulation and freedom of movement
- Hydrotherapy
- Continuous labor support

Copyright © 2014 American College of Nurse-Midwives Inc. All Rights Reserved.



## PEARLS OF MIDWIFERY

### The Evidence

In a Cochrane analysis (25 RCTs, n=5218) researchers demonstrated that upright positions in first stage were associated with

- Shorter labors
- Less reported pain
- Fewer epidurals
- No adverse effects

*Lawrence, Lewis, Hofmeyr, & Styles, 2013*

Copyright © 2014 American College of Nurse-Midwives Inc. All Rights Reserved.



**PEARLS OF MIDWIFERY**

## Practical Application

Encourage freedom of movement and various positions during labor



American Academy of Nursing Midwifery Foundation

Copyright © 2014 American College of Nurse-Midwives Inc. All Rights Reserved.

AMERICAN COLLEGE  
OF NURSE-MIDWIVES

**PEARLS OF MIDWIFERY**



## Hydrotherapy is safe and effective in decreasing pain during active labor.

ACNM, 2014

Copyright © 2014 American College of Nurse-Midwives Inc. All Rights Reserved.

AMERICAN COLLEGE  
OF NURSE-MIDWIVES

## PEARLS OF MIDWIFERY

### The Evidence

In a Cochrane analysis (8 RCT, n=2939) researchers demonstrated that

- Hydrotherapy during active labor decreased both use of anesthesia and reported pain.
- There were no adverse maternal or neonatal outcomes.

Chait & Burns, 2009

Copyright © 2009 American College of Nurse-Midwives Inc. All Rights Reserved.



## PEARLS OF MIDWIFERY



### Practical Application

- If you don't have a tub, a shower can create the same effect.
- Portable birthing tubs can also be used.

Copyright © 2009 American College of Nurse-Midwives Inc. All Rights Reserved.



## PEARLS OF MIDWIFERY

**Continuous labor support should be the standard of care for all women in labor.**

Copyright © 2014 American College of Nurse-Midwives Inc. All Rights Reserved.



## PEARLS OF MIDWIFERY

### The Evidence

In a Cochrane review (22 RTC, n>15,000) researchers demonstrated that continuous labor support promoted

- More spontaneous vaginal birth, shorter labor, and greater maternal satisfaction
- Less use of pain medications

*Hodnett, Gates, Hofmeyr, & Sakala, 2012*

Copyright © 2014 American College of Nurse-Midwives Inc. All Rights Reserved.



## PEARLS OF MIDWIFERY



### Practical Application

- Supportive care in labor includes emotional support, comfort measures, information, advocacy.
- Support persons include midwives, doulas, nurses, partners, families, friends.

Doulas of North America (DONA) International, 2008;  
Hodnett et al., 2012



## PEARLS OF MIDWIFERY



Intermittent auscultation should be the standard of care for low risk women.

© 2012 American College of Nurse-Midwives Inc. All Rights Reserved.



## PEARLS OF MIDWIFERY

### The Evidence

- No professional maternity care organization recommends routine use of EFM.
- Many professional maternity care organizations have statements AGAINST routine use of EFM.
- More than 90% of women report having EFM during labor.

*"Given that available data do not clearly support EFM over IA, either option is acceptable in a patient without complications." ACOG, 2009*

Copyright © 2009 American College of Nurse-Midwives Inc. All rights reserved.



## PEARLS OF MIDWIFERY



Copyright © 2009 American College of Nurse-Midwives Inc. All rights reserved.

### Practical Application

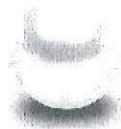
#### Intermittent auscultation allows

- freedom of movement
- upright positions
- increased maternal satisfaction
- natural progression of labor

ACOG, 2009



## PEARLS OF MIDWIFERY



**Do not routinely artificially rupture the membranes.**

Copyright © 2014 American College of Nurse-Midwives Inc. All Rights Reserved.



## PEARLS OF MIDWIFERY

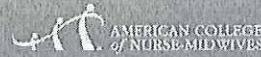
### The Evidence

In a Cochrane analysis (14 RCT, n=5583) researchers found that amniotomy did not

- Shorten labor length
  - Reduce rate of cesarean
- Amniotomy may be associated with
- Umbilical cord prolapse
  - Fetal heart rate decelerations

*Lin, 2005; Smyth, Markham, & Downswell, 2013*

Copyright © 2014 American College of Nurse-Midwives Inc. All Rights Reserved.



## PEARLS OF MIDWIFERY

### Practical Application



Labor  
with intact  
membranes

Copyright © 2014 American College of Nurse-Midwives Inc. All Rights Reserved.



## PEARLS OF MIDWIFERY



Second stage management  
should be individualized  
and support an initial period of  
passive descent and self-directed,  
open-glottis pushing.

Copyright © 2014 American College of Nurse-Midwives Inc. All Rights Reserved.



## PEARLS OF MIDWIFERY

### The Evidence: Pushing with Epidurals

In a meta-analysis of 7 RCTs of initial period of passive descent ("laboring down") vs. immediate pushing in primigravidae with epidurals, researchers found that passive descent

- Increased incidence of spontaneous birth
- Reduced risk of instrument-assisted delivery
- Decreased active pushing time
- No change in cesarean rate

Brancato, Church, & Stone, 2008

Copyright © 2014 American College of Nurse-Midwives Inc. All rights reserved.

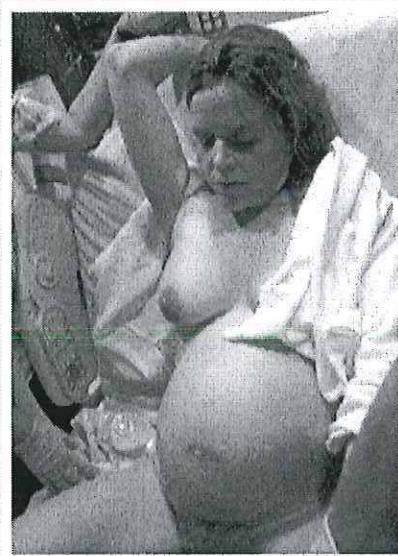


AMERICAN COLLEGE  
of NURSE-MIDWIVES

## PEARLS OF MIDWIFERY

### Practical Application

Honor the "lull phase":  
time between complete  
dilation and the onset  
of spontaneous bearing  
down efforts



Copyright © 2014 American College of Nurse-Midwives Inc. All rights reserved.



## PEARLS OF MIDWIFERY



**There is no evidence to support routine episiotomy or aggressive perineal massage at birth.**

Delayed cord clamping

Copyright © 2015 American College of Nurse-Midwives Inc. All rights reserved.



AMERICAN COLLEGE  
of NURSE-MIDWIVES

## PEARLS OF MIDWIFERY

### The Evidence

In a meta-analysis (15 RTCs and non-RTCs, n= 3911 mother-infant pairs) researchers compared late cord clamping (delayed at least one minute) to immediate cord clamping and found

#### Late cord clamping

- Improved newborn hematocrit
- Reduced risk of newborn anemia
- Benefits extend several months into infancy
- Increased benign polycythemia

*McDonald, Middleton, Downswell, & Morris, 2013*

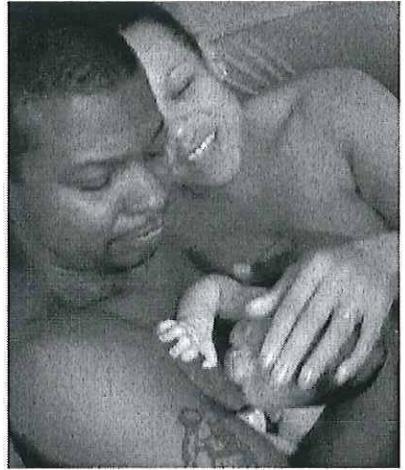
Copyright © 2015 American College of Nurse-Midwives Inc. All rights reserved.



AMERICAN COLLEGE  
of NURSE-MIDWIVES

## PEARLS OF MIDWIFERY

### Practical Application



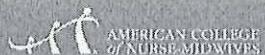
- Place healthy newborn directly on mother's chest
- Assess vital signs while newborn on mother's chest
- Delay routine newborn evaluation
- Encourage breastfeeding within the first hour of life



## PEARLS OF MIDWIFERY



**Out-of-hospital  
birth is safe for  
low-risk women.**



## PEARLS OF MIDWIFERY

### The Evidence: Birth Centers

The National Birth Center Study II (n= 15,574) demonstrated the following related to low-risk women admitted for labor:

- Transfer to the hospital: 16%
- Emergency transfer: 1.9%
- Cesarean rate: 6%
- Perinatal mortality rate: 0.87/1000
- Maternal mortality rate: none
- Low Apgar scores and infant mortality rates similar to low-risk women in hospital settings

*Stapleton, Osborne, & Illuzzi, 2013*

Copyright © 2013 American College of Nurse-Midwives Inc. All Rights Reserved.



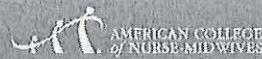
## PEARLS OF MIDWIFERY

### Practical Application

- The majority of planned out-of-hospital births are uneventful and safe.
- Accept the woman's right to choose her birth setting.
- Compassionate, evidence-based care can be provided in all planned birth settings.

*Transforming Maternity Care Vision Team et al., 2010*

Copyright © 2013 American College of Nurse-Midwives Inc. All Rights Reserved.



## PEARLS OF MIDWIFERY



**Have patience  
with labor progress.**

© 2014 American College of Nurse-Midwives Inc. All Rights Reserved.



## PEARLS OF MIDWIFERY

### Evidence

Current researchers have found the following:

- The latent phase lasts longer than presumed  
*Albers, Schiff, & Gorwoda, 1996*
- Many nulliparous women are not in active labor until they are dilated 6 cms  
*Neal et al., 2010; Neal, Lowe, Patrick, Cabbage, & Corwin, 2010*
- Most multiparous women enter active labor when they are dilated 5 cms. The time interval between each cm of cervical dilatation is increasingly shorter once the active phase has started  
*Zhang et al., 2010*

© 2014 American College of Nurse-Midwives Inc. All Rights Reserved.



## PEARLS OF MIDWIFERY

### Evidence *(continued)*

- There is no deceleration phase  
Spong, Berghella, Wenstrom, Mercer, & Saade, 2012; Laughon, 2012
- There is a great deal of variation in the time interval between one cm of cervical dilatation and the next  
Spong et al., 2012
- It is not uncommon for 2 hours to elapse between 6 cms and 7 cms  
Zhang et al., 2010
- The longest normal duration of the second stage for women with and without epidural analgesia is longer than previously thought  
Spong, et al., 2012

Copyright © 2013 American College of Nurse-Midwives Inc. All Rights Reserved.



## PEARLS OF MIDWIFERY

### Practical Application

- Do not use the Friedman Curve to diagnose labor dystocia  
Zhang et al., 2010
- Do not diagnose active labor until after 6 cms dilatation  
Spong et al., 2012
- Allow up to 2 hours between 1 cm of cervical dilation and the next before diagnosing dystocia in the active phase of labor  
Spong et al., 2012
- No change in cervical dilation before 6 cms is not abnormal, but 4 hours may be too long after 7 cms dilation  
Spong et al., 2012

Copyright © 2013 American College of Nurse-Midwives Inc. All Rights Reserved.

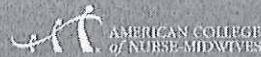


## PEARLS OF MIDWIFERY



**Vaginal birth after  
cesarean (VBAC) is  
safe for most women.**

Copyright © 2014 American College of Nurse-Midwives Inc. All Rights Reserved.



## PEARLS OF MIDWIFERY

### Evidence

A synthesis of literature on VBAC indicates that VBAC is

- safer than another cesarean
- safer for women and infants in future pregnancies

The majority of women attempting a VBAC successfully achieve vaginal birth.

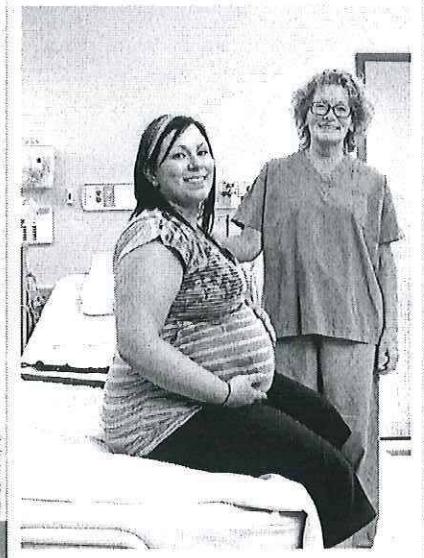
Redefining active labor can increase VBAC success.

*Boyle et al., 2013; Guise et al., 2010; Knight et al., 2014.*

Copyright © 2014 American College of Nurse-Midwives Inc. All Rights Reserved.



## PEARLS OF MIDWIFERY



© 2014 American College of Nurse-Midwives, Inc. All Rights Reserved.

### Practical Application

Promote vaginal birth as a safe option for women who have had prior cesarean birth.

AMERICAN COLLEGE  
OF NURSE-MIDWIVES

## PEARLS OF MIDWIFERY



© 2014 American College of Nurse-Midwives, Inc. All Rights Reserved.

### How can we best help women draw upon their innate capacity and strength to birth safely?

AMERICAN COLLEGE  
OF NURSE-MIDWIVES

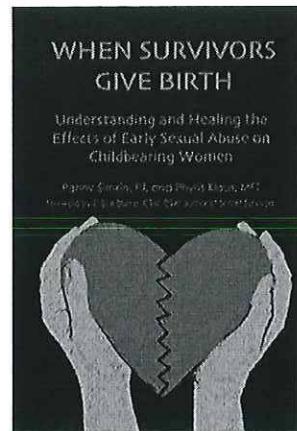
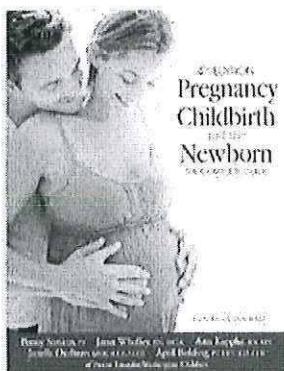
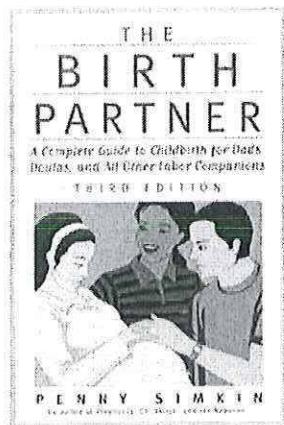
## The Three R's of Childbirth

Concept developed by Penny Simkin, PT

The Essence of Coping during labor

Relaxation  
Rhythm  
Ritual

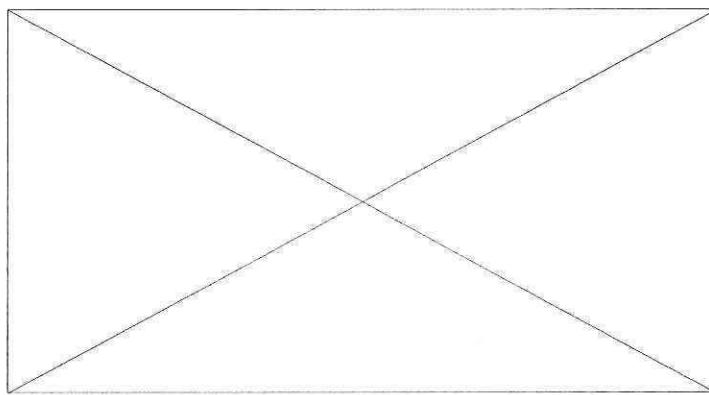
## Penny Simkin, PT



## What does coping mean?

- Does not mean silent
- Does not mean being still
- Woman can be active and vocal while maintaining a rhythm or repetition

## Women Coping with Labor



## Rhythm

- Can be unique and unplanned
- Emerge spontaneously when a woman is not restricted
- Less cognitive, more instinctual
  - Breathing
  - Vocalizing
  - Swaying
  - Tapping
  - Self-stroking
  - Counting
  - Mantra

## Ritual

- Repetition of the same rhythmic activity
- An action or behavior
- May involve other people including partner or doula
- As birth attendants, we can help women regain this ritual when it is lost

## Pain vs. Suffering

- As nurses, we are trained treat pain
- Pain is a vital sign
- If we ignore pain, we are neglecting our patients
- The presence of pain makes us uncomfortable

## How to differentiate Pain and Suffering

- When we believe that pain is the same as suffering, we convey that to laboring women and their families
- Definition of Pain
  - Unpleasant sensory or emotional experience associated with actual or potential tissue
- Definition of Suffering
  - Negative emotional reactions including perceived threat to body or psyche, helplessness, loss of control, and fear

## Can there be pain without suffering?

- Can you imagine a time when you were in pain and did not suffer?
  - Athletics
  - Planned surgery recovery
  - Dental work
- What were the modifiers?
  - Knowledge
  - Support
  - Reassurance
  - Feeling of Safety

## Can there be suffering without pain?

- Can you think of a time when you were suffering with no physical pain?
  - Worry
  - Anguish
  - Death of a loved one
  - Cruel or insensitive treatment
- Not all suffering is caused by pain
- Goal of Education is to reduce the negative modifiers (fear, loss of control, etc.)
- Goal of anesthesia is to remove awareness of pain

## Fetal Malposition

- 147 laboring women at 37 or more weeks gestation. Occipito-posterior position of the baby was confirmed by ultrasound.
- Seventy women, who were randomized in the intervention group, assumed hands and knees positioning for a period of at least 30 minutes, compared to 77 women in the control group who did not assume hands and knees positioning in labor.

Findings:

- The reduction in occipito-posterior or transverse positions at delivery and operative deliveries were *not statistically significant*.
- There *was a significant reduction* in back pain.

Hands and knees posture in late pregnancy or labour for fetal malposition (lateral or posterior)  
Authors: Hunter, Hofmeyr and Kulier. July 2007

## Fetal Malposition

### Authors' conclusions

Use of hands and knees position for 10 minutes twice daily to correct occipito-posterior position of the fetus in late pregnancy cannot be recommended as an intervention.

This is not to suggest that women should **not** adopt this position if they find it comfortable.

The use of position in labor was associated with reduced backache.

Further trials are needed to assess the effects on other labor outcomes



## PEARLS OF MIDWIFERY

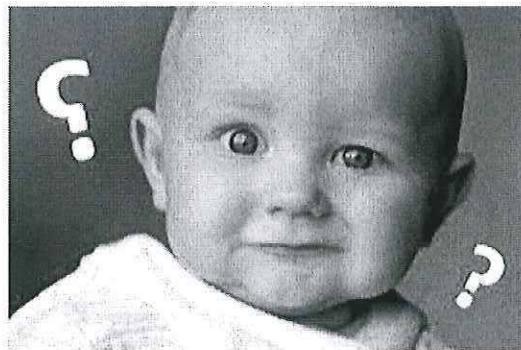
### Normal Birth: Pearls in Your Pocket

- Allow women to eat in early labor and drink throughout
- No routine IV fluids
- IA, not EFM, for low risk women
- Encourage women to be upright and mobile
- Provide continuous 1 to 1 support
- Don't routinely perform AROM
- Honor the "lull phase" of second stage
- No routine episiotomies or aggressive vaginal stretching
- Delay cord clamping
- Encourage immediate skin-to-skin contact and breastfeeding
- Listen to the evidence, listen to women, and trust yourself
- Have patience with labor progress
- Encourage VBAC

Copyright © 2014 American College of Nurse-Midwives Inc. All Rights Reserved.



## Questions?



## References

- Gambito, K. Birthing Balls comp. You Tube video. [youtube.com/watch?v=BzO-QvLMWzw](https://www.youtube.com/watch?v=BzO-QvLMWzw)
- Grant, C. Birthing Positions. Childbirth Graphics
- Grant and Clutter. The Peanut Ball: A Remarkable Labor Support Tool. International Doula Volume 22 number 4. 2014
- Gupta, Hofmeyr, Shehmar. Position in the second stage of labour for women without epidural anaesthesia. March 2012. Cochrane Database Search.
- Hunter, Hofmeyr, Keller. Hands and Knees Posture in Late Pregnancy for Fetal Malposition (lateral or posterior). July 2007. Cochrane Database Search.
- Lawrence , Lewis , Hofmeyr and Styles. Maternal Positions and Mobility During First Stage. Online Publication Date: October 2013.
- Payton, C. Use of the Peanut Ball to Decrease the First and Second Stages of Labor, Capstone Project.. Bellarmine University 5-9-2015. Article at website: <http://scholarworks.bellarmine.edu/cgi/viewcontent.cgi?article=1013&context=tdc>.
- Simkin P., Ancheta, R. The Labor Progress Handbook. Wiley Blackwell, 2005.
- Simkin, P. Pain, Suffering, and Trauma in Labor and Prevention of Subsequent Posttraumatic Stress Disorder.
- Tussey, C and Botsios, E. Decrease the Length of Labor with the Use of a Labor Ball with Patients That Receive An Epidural.. AWOHNN conference abstract June 26, 2011.
- Turner, H. Using the Peanut Ball By Your Birth. You Tube Video. [www.youtube.com/watch?v=iMjmkjnrUA8](https://www.youtube.com/watch?v=iMjmkjnrUA8)