



**VII CONGRESSO CATARINENSE  
DE OBSTETRÍCIA E GINECOLOGIA**  
II Congresso Catarinense de Perinatologia

25 a 27 de junho de 2015 | Expoville | Joinville | SC

**Pablo de Queiroz Santos**

**Declaração de conflito de interesse**

Não recebi qualquer forma de pagamento ou auxílio financeiro de entidade pública ou privada para pesquisa ou desenvolvimento de método diagnóstico ou terapêutico ou ainda, tenho qualquer relação comercial com a indústria farmacêutica



# Experiências em Humanização: sala de parto

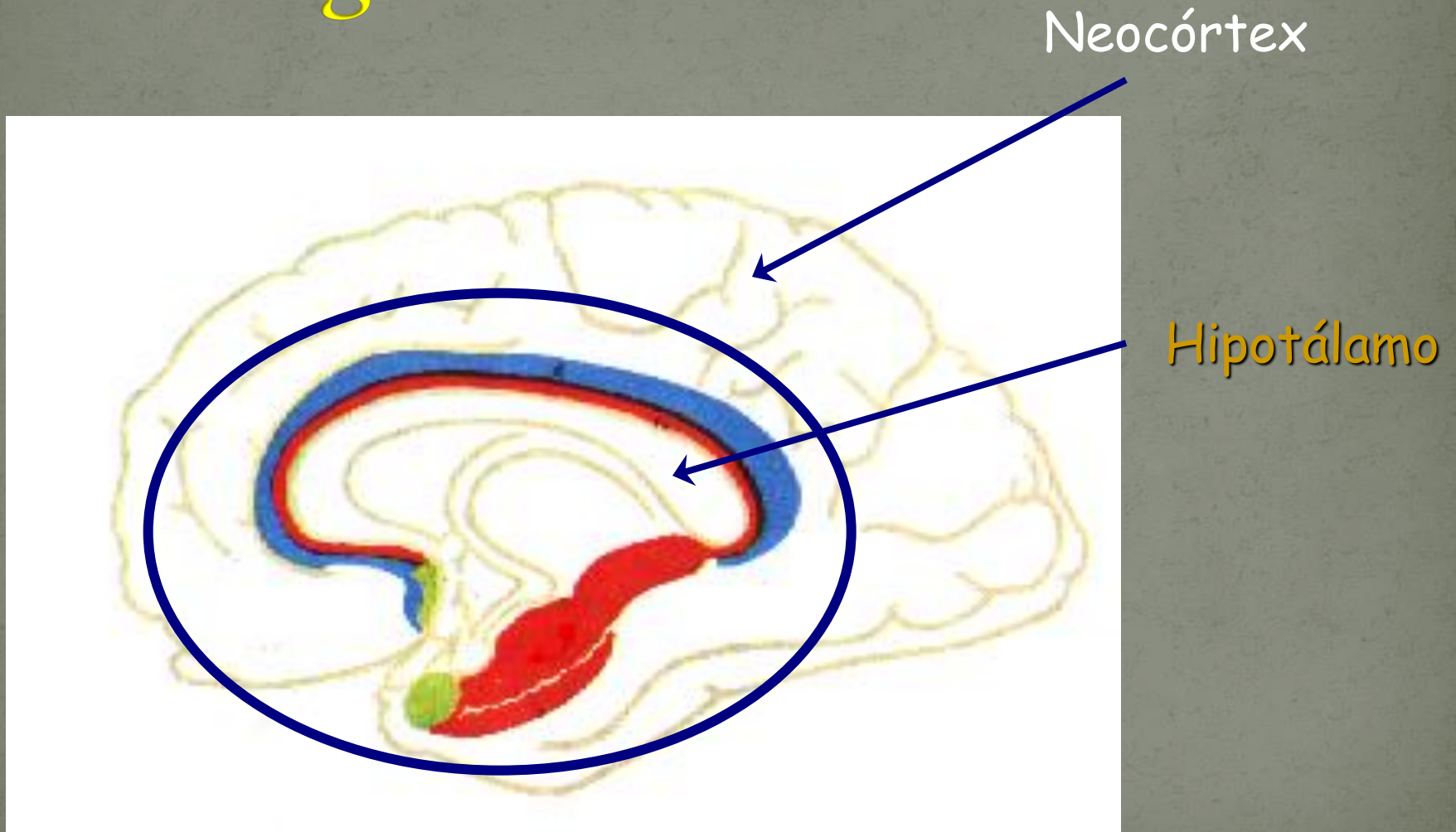
Dr. Pablo de Queiroz Santos

Hospital Universitário – UFSC

ALSO (Advanced Life Support in Obstetrics)

# Sistema Nervoso Central

## Fisiologia





# Psicofisiologia e parturição

## Ocitocina x Adrenalina



# Psicofisiologia e parturição

- Sentir-se segura
- Não se sentir observada
- Temperatura adequada



# Assistência no 1º período

- Admissão
  - Fase ativa do trabalho de parto
  - Admissão precoce → intervenção



# Uso rotineiro de enema glicerinado



.Reveiz L, Gaitán HG, Cuervo LG. Enemas during labour. Cochrane Database Syst Rev 2013; 7:CD000330.

# Uso rotineiro de tricotomia



Basevi V, Lavender T. Routine perineal shaving on admission in labour. Cochrane Database Syst Rev 2014; 11:CD001236.



# Dieta



Singata M, Tranmer J, Gyte GM. Restricting oral fluid and food intake during labour. Cochrane Database Syst Rev 2013; 8:CD003930.

# Deambulação / Posição vertical

- Reduz duração do trabalho de parto (1h 22m)
  - -1.36, IC95% -2.22 a -0.51
- Diminui uso de analgesia
  - RR 0.81, IC95% 0.66 a 0.99
- Reduz taxa de cesárea
  - RR 0.71, IC95% 0.54 a 0.94
- Diminui admissão em UTI neonatal
  - RR 0.20, IC95% 0.04 a 0.89

Lawrence, A, Lewis, L, Hofmeyr, GJ, et al. Maternal positions and mobility during first stage labour.  
Cochrane Database Syst Rev 2013





# Deambulação / Posição vertical





# Suporte emocional contínuo (Doula / familiar)

- ↑ Parto espontâneo

RR 1.08, IC95% 1.04 a 1.12

- ↓ Analgesia intraparto

RR 0.90, IC95% 0.84 a 0.97

- ↓ Insatisfação

RR 0.69, IC95% 0.59 a 0.79

- ↓ Duração do T.P.

Mean difference -0.58 hours, IC95% -0.86 a -0.30

- ↓ Parto Cesárea

RR 0.79, IC95% 0.67 a 0.92

- ↓ Parto vaginal assistido

RR 0.90, IC95% 0.84 a 0.96

- ↓ Apgar 5º min <7

RR 0.70, IC95% 0.50 a 0.96



Hodnett ED, Gates S, Hofmeyr GJ, Sakala C. Continuous support for women during childbirth. Cochrane Database Syst Rev 2013

# Immersion in water in labour and birth

**Cluett Elizabeth R, Burns Ethel**

Cochrane Database of Systematic Reviews, April 2009



## Imersão em água

- Reduz uso de analgesia
  - OR 0.82, IC95% 0.70 a 0.98
- Reduz duração 1º estágio TP
  - -32.4 min, IC95% -58.7 a -6.1 min
- Não altera resultado neonatal, infecção, trauma perineal, taxa de cesárea ou parto vaginal assistido









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## IMMERSION IN WATER DURING LABOUR AND BIRTH



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### Royal College of Obstetricians and Gynaecologists/Royal College of Midwives Joint statement No.1

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#### Summary

- 1 Both the Royal College of Obstetricians and Gynaecologists and the Royal College of Midwives support labouring in water for healthy women with uncomplicated pregnancies. The evidence to support underwater birth is less clear but complications are seemingly rare. If good practice guidelines are followed in relation to infection control, management of cord rupture and strict adherence to eligibility criteria, these complications should be further reduced.



# ACOG

- 1º estágio:
  - Reduz duração do trabalho
  - Reduz uso de analgesia
  - Seguro
- 2º estágio:
  - Ainda carece de maiores estudos
  - Relatos de casos adversos
  - Dever ser considerado experimental



The American College of  
Obstetricians and Gynecologists  
WOMEN'S HEALTH CARE PHYSICIANS

American Academy  
of Pediatrics



DEDICATED TO THE HEALTH OF ALL CHILDREN®

## COMMITTEE OPINION

Number 594 • April 2014

Committee on Obstetric Practice  
American Academy of Pediatrics

*This document reflects emerging clinical and scientific advances as of the date issued and is subject to change. The information should not be construed as dictating an exclusive course of treatment or procedure to be followed.*

### Immersion in Water During Labor and Delivery

**ABSTRACT:** Immersion in water has been suggested as a beneficial alternative for labor, or delivery, or both and over the past decades has gained popularity in many parts of world. Immersion in water during the first stage of labor may be associated with decreased pain or use of anesthesia and decreased duration of labor. However, there is no evidence that immersion in water during the first stage of labor otherwise improves perinatal outcomes, and it should not prevent or inhibit other elements of care. The safety and efficacy of immersion in water during the second stage of labor have not been established, and immersion in water during the second stage of labor has not been associated with maternal or fetal benefit. Given these facts and case reports of rare but serious adverse effects in the newborn, the practice of immersion in the second stage of labor (underwater delivery) should be considered an experimental procedure that only should be performed within the context of an appropriately designed clinical trial with informed consent. Facilities that plan to offer immersion in the first stage of labor need to establish rigorous protocols for candidate selection, maintenance and cleaning of tubs and immersion pools, infection control procedures, monitoring of mothers and fetuses at appropriate intervals while immersed, and immediately and safely moving women out of the tubs if maternal or fetal concerns develop.

Immersion in water has been suggested as a beneficial alternative for labor, or delivery, or both and over the past decades has gained popularity in many parts of world (1–4). Approximately 1% of births in the United Kingdom include at least a period of immersion (5), and a 2006 joint statement from the Royal College of Obstetricians and Gynaecologists and Royal College of Midwives supported immersion in water during labor for healthy women with uncomplicated pregnancies and stated that to achieve best practice with water birth, it is necessary for organizations to provide systems and structure to support this service (6). The prevalence of this practice in the United States is unknown because such data are not collected as part of vital statistics. A 2001 survey found that at least 143 U.S. birthing centers offered immersion in water during labor, or delivery, or both (7). A 2005 commentary by the Committee on Fetus and Newborn of the American Academy of Pediatrics did not endorse underwater birth (8). This Committee Opinion reviews the literature concerning the reported risks and benefits of immersion in water during labor and delivery.

#### Evidence Regarding Immersion in Water During Labor and Delivery

Before examining available evidence concerning immersion during childbirth, it is important to recognize limitations of studies and evidence in this area. Most published literature that recommend underwater births are retrospective reviews of a single center experience, observational studies using historical controls, or personal opinions and testimonials, often in publications that are not peer reviewed (1–3, 9–11). Also of importance, there are no basic science studies in animals or humans to confirm the physiologic mechanisms proposed to underlie the reported benefits of underwater births.

Other issues, in addition to the nature and design of studies, complicate the interpretation of the published findings, including the absence of a uniform definition of the exposure itself. Often, immersion is referred to as “underwater birth,” but effects and outcomes may be different for immersion during the first stage and second stage of labor. This document, accordingly, avoids the

# MFE Contínua – baixo risco

- ↑ Intervenções por traçados anormais quando comparados à ausculta intermitente
  - ↑ 63% taxa de cesarea
  - ↑ 15% parto vaginal assistido
- Não melhora resultado neonatal

National Institute for Health and Care Excellence (NICE) 2014

FIGO 2015





# Assistência no 1º período

- Amniotomia de rotina
  - Não reduz duração TP
    - -20min IC95% -96 a +55 min
  - Sem diferença na taxa de cesárea
    - RR 1.27, IC95% 0.99 a 1.63
  - Sem diferença no Apgar 5º min <7
    - RR 0.53, IC95% 0.28 a 1.00



Smyth RM, Markham C, Dowswell T. Amniotomy for shortening spontaneous labour. Cochrane Database Syst Rev 2013



# Assistência ao 2º período

- Posição materna
  - Semi-sentada
  - Sims
  - Cócoras
  - Genupeitoral
  - Litotomia
  - Ortostática



# Assistência ao 2º período

- Ação da gravidade

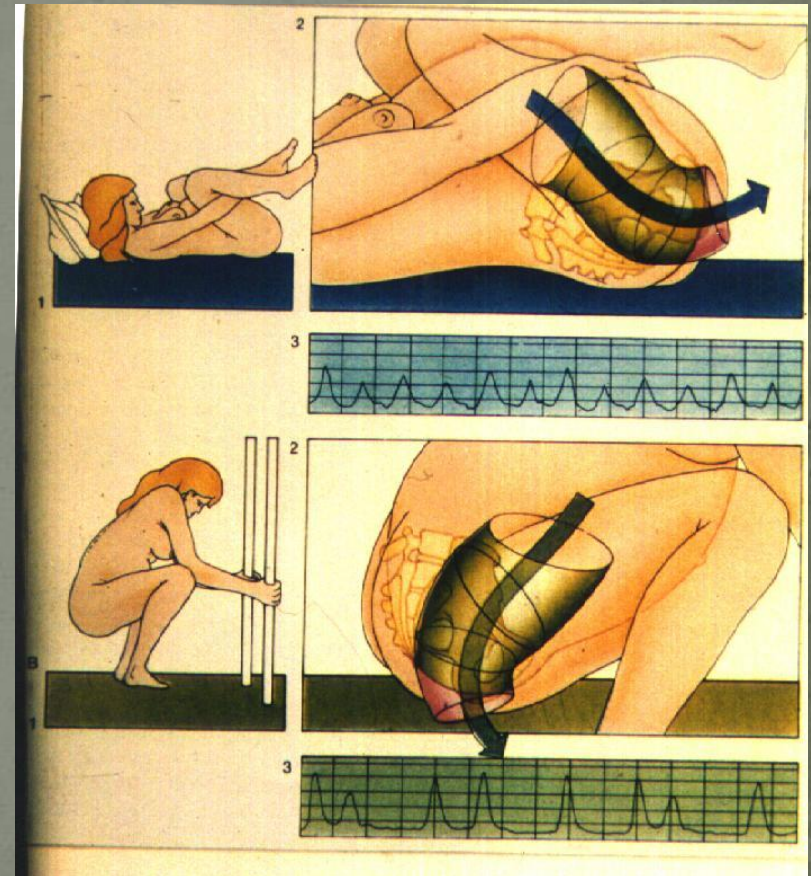
Howard 1958, Mendez-Bauer 1975, Russel 1982, Sabatino 1997

- Menor risco de compressão dos grandes vasos maternos

Scott 1974, Sabatino 1984, Sabatino 1997,

- Melhora do equilíbrio ácido básico materno

Ang 1969





# Assistência ao 2º período

- Ação da gravidade

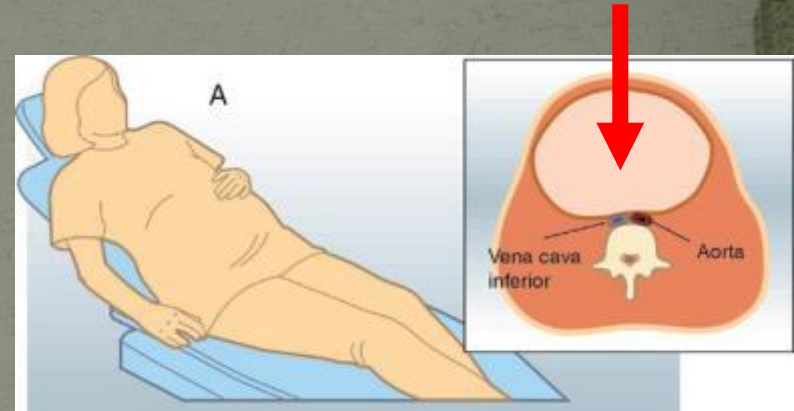
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# Assistência ao 2º período

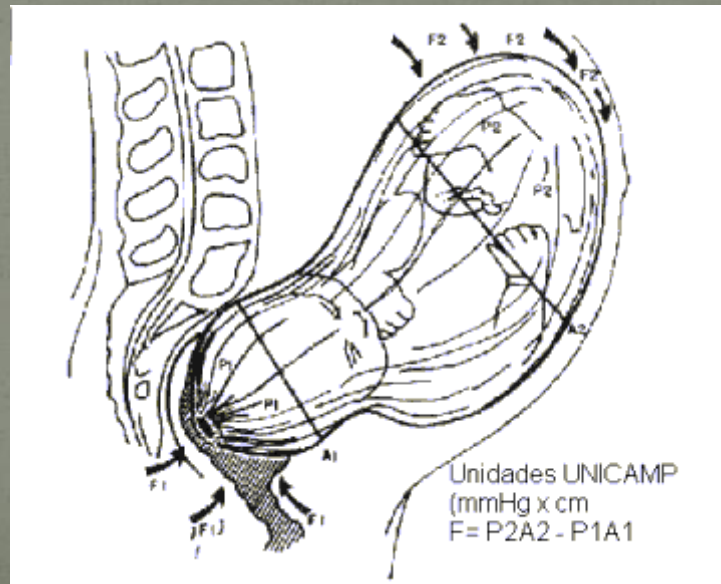
- **Melhora da função pulmonar materna**  
Ang 1969, Gallo 1992
- **Contrações uterinas mais fortes e eficientes**  
Caldeyro-Barcia 1960, Mendez-Bauer 1975, Sabatino 1984
- **Menores pressões intravaginais**  
Sabatino 1995

Tabela IV - Período de expulsão

	Deitada	Sentada	P
M C V (1)	2,71 + 0,35	3,14 + 0,34	p = 0,006
V E F1 (1)	2,22 + 0,23	2,66 + 0,30	p = 0,0001
I T	82,17 + 6,29	84,79 + 4,78	N S
M V V (1/M)	66,17 + 6,99	79,42 + 9,01	p = 0,001
M F E (1/S)	4,36 + 0,46	5,32 + 0,94	p = 0,004
F E F (1/M)	3,57 + 0,47	4,23 + 0,58	p = 0,005
F M F 25-75 (1/S)	2,60 + 0,45	3,27 + 0,38	p = 0,001
F M F T (S)	0,55 + 0,13	0,49 + 0,08	N S

# Assistência ao 2º período

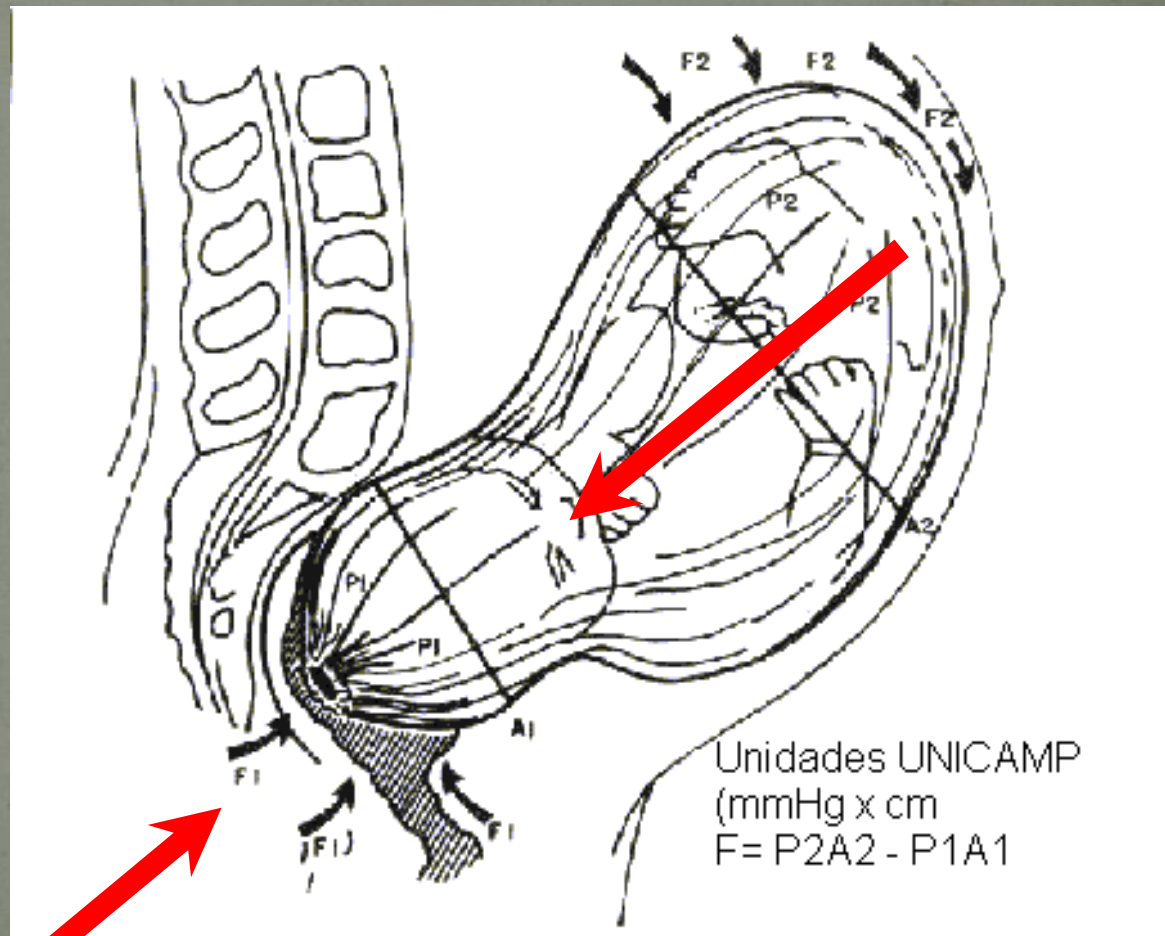
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Sabatino 1995



# Assistência ao 2º período

Unidades  
UNICAMP

Sabatino 1996

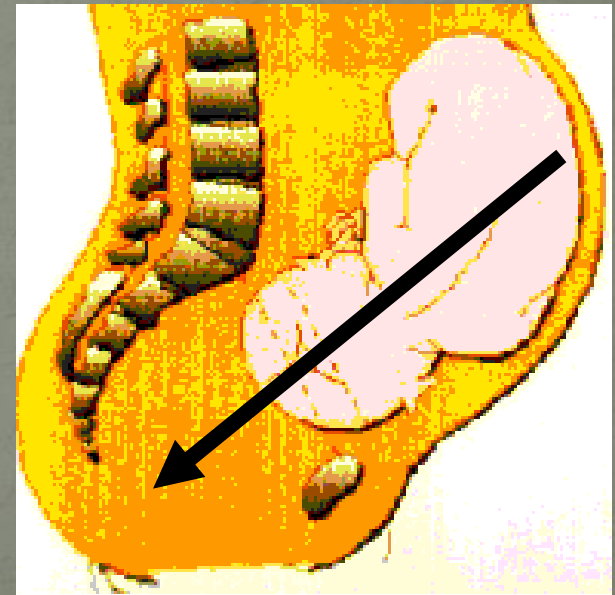
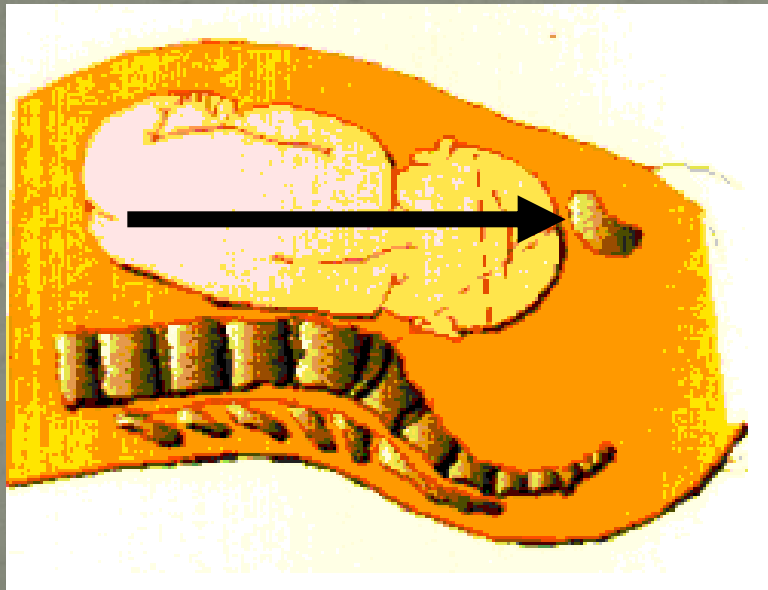




# Assistência ao 2º período

- Melhora do ângulo de encaixe (*drive angle*)

Sabatino 1997, Gold 1950



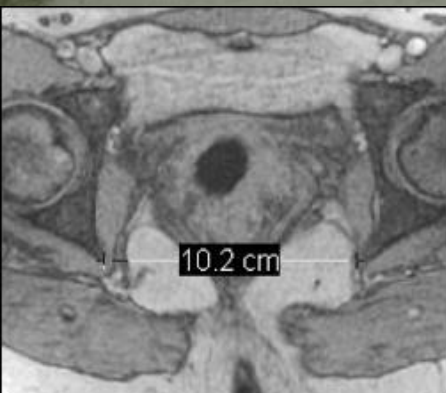
# Assistência ao 2º período

- Aumento do diâmetro antero-posterior e transverso da pelve, resultando em um diâmetro total maior.

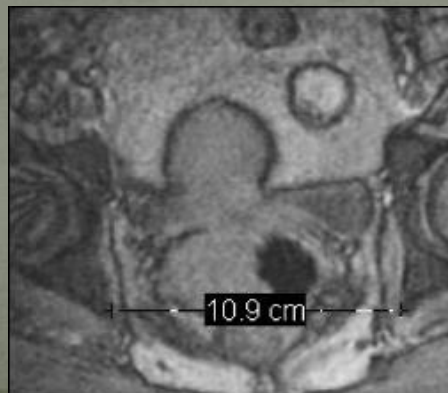
Borell 1957, Russell 1969, Russel 1982, Lilford 1989, Gupta 1991, Michel 2002.



Horizontal



Vertical



Horizontal



Vertical



# Assistência ao 2º período

- Diminuição parto vaginal assistido  
RR 0.78; IC95% 0.68 a 0.90
- Redução episiotomia  
RR 0.79, IC95% 0.70 a 0.90
- Diminuição padrões alterados de BCF  
RR 0.46; IC95% 0.22 a 0.93
- Aumento perda sanguínea >500ml  
RR 1.65; IC95% 1.32 a 2.60



Gupta JK, Hofmeyr GJ, Shehmar M. Position in the second stage of labour for women without epidural anaesthesia. Cochrane Database Syst Rev 2012;



# Assistência ao 2º período



# Episiotomia

*Rotina*  
*X*  
*Seletiva*

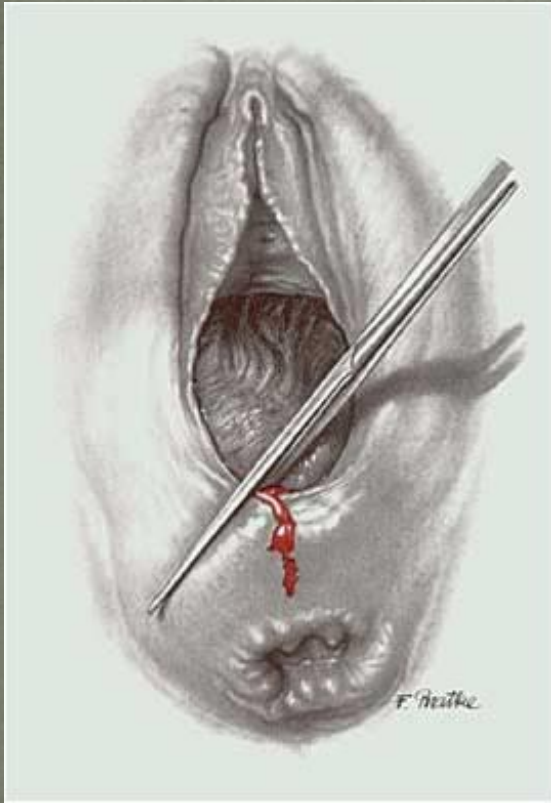


Foto:  
[www.pinterest.com/pin/462181980479518041](https://www.pinterest.com/pin/462181980479518041)



# Revisão sistemática

- Episiotomia seletiva:
  - Laceração perineal grave  
0.67 [0.49, 0.91]
  - Qualquer laceração posterior  
0.88 [0.84, 0.92]
  - Laceração com sutura  
0.71 [0.61, 0.81]
  - **Laceração anterior**  
**1.84 [1.61, 2.10]**





# Revisão sistemática

- Episiotomia seletiva:
  - Perda sanguínea  
-58.0 [-107.57, -8.43]
  - Dor perineal na alta  
0.72 [0.65, 0.81]
  - Complicações da cicatrização  
0.69 [0.56, 0.85]
  - Deiscência – 7dias  
0.48 [0.30, 0.75]



# Revisão sistemática

- Parto vaginal assistido
- Dor perineal – 10 dias
- Dor perineal moderada/severa - 10 dias
- Uso de analgésicos orais – 10 dias
- Dor perineal – 3 meses
- Dor perineal moderada/severa – 3 meses
- Nenhuma tentativa de ter relação sexual em 3 meses
- Dispareunia nos 3 primeiros meses
- Dispareunia – 3 meses
- Algum episódio de dispareunia nos 3 primeiros anos
- Hematoma perineal na alta
- Infecção perineal
- Abaulamento do períneo no 3º mês
- Incontinência urinária - 3 a 7 meses
- Incontinência urinária - 3 anos
- Uso de absorventes para incontinência urinária
- Índice de Apgar <7 no 1º minuto
- Admissão em UTI neonatal



Carroli Guillermo, Mignini Luciano. Episiotomy for vaginal birth. Cochrane Database of Systematic Reviews. In: *The Cochrane Library*, Issue 3, 2014.

# Assistência ao 2º período

- Clampeamento do cordão umbilical (tardio x precoce)
  - **Termo**
    - ↑ Ht e ferritina (2-6 meses)
    - ↓ Anemia (2-6 meses)
    - Sem diferença no risco de hiperbilirrubinemia grave
    - Aumento necessidade de fototerapia
    - RN saudável: Clampeamento antes da respiração espontânea – UTI e óbito
  - **Pré-termo**
    - ↑ Ht (4h pós-parto)
    - ↓ hemorragia intraventricular
    - ↓ necessidade de transfusão
    - ↓ risco de enterocolite necrotizante
    - Sem diferença na necessidade de tratamento para icterícia

Ersdal HL, Linde J, Mduma E, et al. Neonatal outcome following cord clamping after onset of spontaneous respiration. *Pediatrics* 2014; 134:265.

McDonald, SJ, Middleton, P. Effect of timing of umbilical cord clamping of term infants on maternal and neonatal outcomes. *Cochrane Database Syst Rev* 2013; :CD004074.

Rabe, H, Reynolds, G, Diaz-Rossello, J. Early versus delayed umbilical cord clamping in preterm infants. *Cochrane Database Syst Rev* 2012; :CD003248.







Obrigado

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*Fotonascer*