

# Resuscitation and Pregnancy

A super quick review in slides.

Podcasts > Health > The CRACKCast and CanadiEM.org Team



# CRACKCast & Physicians as Humans on CanadiEM

The CRACKCast and CanadiEM.org Team >

**Details** Ratings and Reviews Related

## From the Provider

CRACKCast (Core Rosen's and Clinical Knowledge) helps residents to "Turn on their learn on" through podcasts that assist with exam prep by covering essential core content. Physicians as Humans explores the struggles that physicians face and how they have overcome them. From addictions, mental health issues, and all manner of personal crises will be discussed to help let those who are currently struggling know that they are not alone. CanadiEM aims to improve emergency care in Canada by building an online community of practice for healthcare practitioners and providing them with high quality, freely available educational resources.

Audio  
 Health  
**CLEAN**  
**LYRICS**

LINKS  
 Website  
 Report a Concern

▲	NAME	TIME	RELEASED	DESCRIPTION		POPULARITY	PRICE
1	CRACKCast E180 - Labor & Delivery	37 min	May 24, 2018	This episode of CRACKCast covers Ros...	<i>i</i>	██████████	Get ▾
2	CRACKCast E179 - Drug Therapy in Pregnancy	10 min	May 21, 2018	This episode of CRACKCast covers Ros...	<i>i</i>	██████████	Get ▾
3	CRACKCast E178 - Co-Morbidity Medical Emergencies During Pre...	15 min	May 17, 2018	This episode of CRACKCast covers Ros...	<i>i</i>	██████████	Get ▾
4	CRACKCast E177 - Acute Complications of Pregnancy	36 min	May 14, 2018	This episode of CRACKCast covers Ros...	<i>i</i>	██████████	Get ▾
5	CRACKCast E176 - Musculoskeletal Disorders	37 min	May 10, 2018	Core questions What are the indications...	<i>i</i>	██████████	Get ▾
6	CRACKCast E175 - Neurologic Disorders	39 min	May 7, 2018	This episode of CRACKCast covers Cha...	<i>i</i>	██████████	Get ▾
7	CRACKCast E174 - Genitourinary and Renal Tract Disorders	35 min	May 3, 2018	This episode of CRACKCast covers Ros...	<i>i</i>	██████████	Get ▾
8	CRACKCast E173 - Infectious Diarrheal Disease and Dehydration	30 min	Apr 30, 2018	Core Questions: 1) What are three path...	<i>i</i>	██████████	Get ▾
9	CRACKCast E172 - Gastrointestinal Disorders	31 min	Apr 26, 2018	Core questions: List 8 causes of neon...	<i>i</i>	██████████	Get ▾
10	CRACKCast E171 - Pediatric Cardiac Disorders - PART B	33 min	Apr 23, 2018	This episode of CRACKCast reviews Ros...	<i>i</i>	██████████	Get ▾
11	CRACKCast E171 - Pediatric Cardiac Disorders - PART A	28 min	Apr 19, 2018	This episode of CRACKCast covers Ros...	<i>i</i>	██████████	Get ▾
12	CRACKCast E170 - Pediatric Respiratory Emergencies: Disease ...	22 min	Apr 16, 2018	Core questions: Name 8 non-infectiou...	<i>i</i>	██████████	Get ▾
13	CRACKCast E169 - Pediatric Respiratory Emergencies: Lower Ai...	31 min	Apr 12, 2018	Core questions: Excluding asthma, list ...	<i>i</i>	██████████	Get ▾

Podcasts > Health > The CRACKCast and CanadiEM.org Team



# CRACKCast & Physicians as Humans on CanadiEM

The CRACKCast and CanadiEM.org Team >

**Details** Ratings and Reviews Related

## From the Provider

CRACKCast (Core Rosen's and Clinical Knowledge) helps residents to "Turn on their learn on" through podcasts that assist with exam prep by covering essential core content. Physicians as Humans explores the struggles that physicians face and how they have overcome them. From addictions, mental health issues, and all manner of personal crises will be discussed to help let those who are currently struggling know that they are not alone. CanadiEM aims to improve emergency care in Canada by building an online community of practice for healthcare practitioners and providing them with high quality, freely available educational resources.

Audio  
 Health  
**CLEAN**  
**LYRICS**  
 LINKS  
 Website  
 Report a Concern

▲	NAME	TIME	RELEASED	DESCRIPTION	POPULARITY	PRICE
1	CRACKCast E180 - Labor & Delivery	37 min	May 24, 2018	This episode of CRACKCast covers Ros...	i	Get ▾
2	CRACKCast E179 - Drug Therapy in Pregnancy	30 min	May 21, 2018	This episode of CRACKCast covers Ros...	i	Get ▾
3	CRACKCast E178 - Co-Morbidity Medical Emergencies	35 min	May 17, 2018	This episode of CRACKCast covers Ros...	i	Get ▾
4	CRACKCast E177 - Acute Complications of Pregnancy	35 min	May 14, 2018	This episode of CRACKCast covers Ros...	i	Get ▾
5	CRACKCast E176 - Musculoskeletal Disorders	37 min	May 10, 2018	Core questions What are the indications...	i	Get ▾
6	CRACKCast E175 - Neurologic Disorders	39 min	May 7, 2018	This episode of CRACKCast covers Cha...	i	Get ▾
7	CRACKCast E174 - Genitourinary and Renal Tract Disorders	35 min	May 3, 2018	This episode of CRACKCast covers Ros...	i	Get ▾
8	CRACKCast E173 - Infectious Diarrheal Disease and Dehydration	30 min	Apr 30, 2018	Core Questions: 1) What are three path...	i	Get ▾
9	CRACKCast E172 - Gastrointestinal Disorders	31 min	Apr 26, 2018	Core questions: List 8 causes of neon...	i	Get ▾
10	CRACKCast E171 - Pediatric Cardiac Disorders - PART B	33 min	Apr 23, 2018	This episode of CRACKCast reviews Ros...	i	Get ▾
11	CRACKCast E171 - Pediatric Cardiac Disorders - PART A	28 min	Apr 19, 2018	This episode of CRACKCast covers Ros...	i	Get ▾
12	CRACKCast E170 - Pediatric Respiratory Emergencies: Disease ...	22 min	Apr 16, 2018	Core questions: Name 8 non-infectiou...	i	Get ▾
13	CRACKCast E169 - Pediatric Respiratory Emergencies: Lower Ai...	31 min	Apr 12, 2018	Core questions: Excluding asthma, list ...	i	Get ▾

**FREE**

# Resuscitation in this context

- Consideration given to ....
  - Mother (First Priority)
  - Foetus

# Fetal Viability

# Fetal Viability

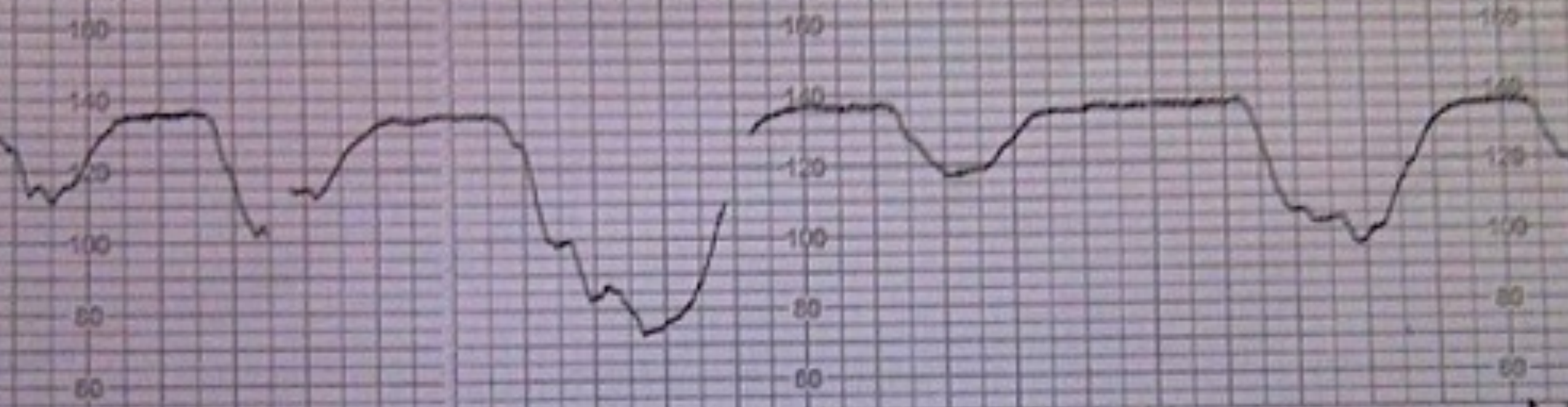
- 24 weeks
- Measure pubic symphysis to fundal height
- Approximates the umbilicus
  - Below umbilicus = non viable
  - Above umbilicus = viable
- Maternal resuscitation is always #1 priority

What are the CTG signs of fetal distress?

# What are the CTG signs of fetal distress?

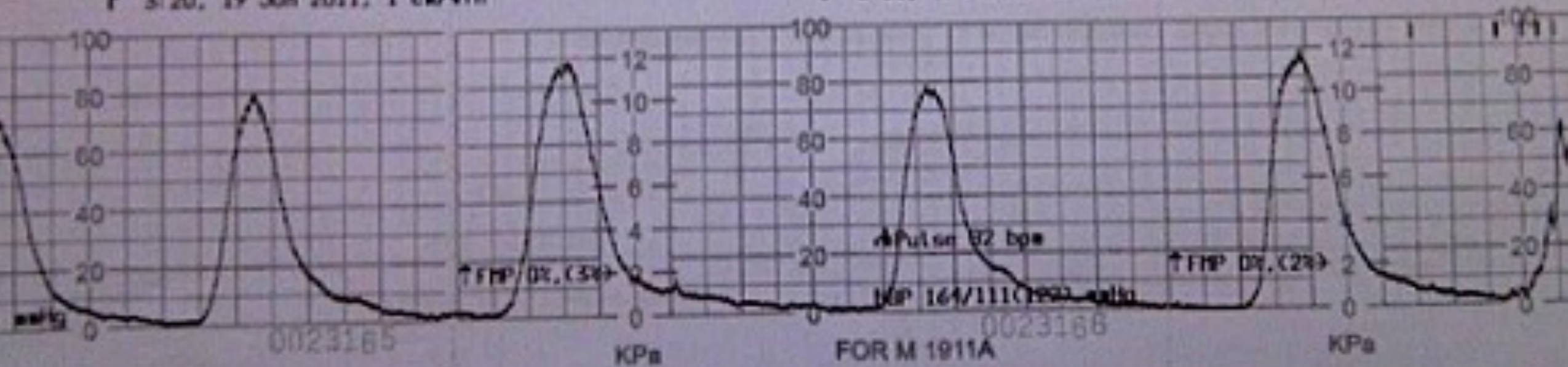
- Changes in HR – normal HR 120-160/min
- Changes in HR variability
- Late decelerations.





3:20, 19 Jun 2011, 1 ca/min

3:30, 19 Jun 2011, 1 ca/min



↑ FHP DR. (30)

Pulse 32 bps

KPa 164/111 (193) call

↑ FHP DR. (28)

FOR M 1911A

0023165

0023166

KPa

KPa

# Physiologic Changes in pregnancy

- CVS

- Resp

- GI

# Physiologic Changes in pregnancy

- CVS
  - Inc HR/CO
  - Lower MAP

THESE CHANGES CAN MIMIC SHOCK

- Resp
  - Increased minute ventilation – manifests as inc RR
  - Dec vital capacity.
  - High oxygen consumption

- GI

- Dec gastric emptying

- Decr tone of distal oesophageal sphincter – inc risk of reflux

# Consequences

- Can mimic shock (in fact they may be normal)
- Higher blood volume – can compensate for longer before crashing and burning
- Hard to ventilate (BVM) need to ventilate at higher RR than normal.
- Higher aspiration risk
- Rapid desaturation (3x faster)

# Anatomic Changes

- Abdominal contents displaced upwards
  - Bowel
  - Bladder
    - At risk of rupture in trauma.
  - Diaphragm
    - caution when placing chest tubes in trauma.
- Large Breasts
  - Makes laryngoscopy difficult. Use short handle.

# Lab values

- Physiologic anaemia
- Reduced HCT
- Low PaCO<sub>2</sub>
  - ie a PCO<sub>2</sub> of 40-45mm Hg may indicate mum is tiring.

# Effects of a large uterus

- Displaces organs
- Compresses IVC
  - Reduces preload – decreases CO by up to 30%
  - Can Decrease BP by up to 30mmHg.
- Can be a source of massive bleeding in trauma.
  
- Implications – left lateral tilt to improve venous return.
- Alternatively get someone to manually displace the uterus.



# Radiology

- How much radiation is bad?
  - Fetus is most sensitive in 1<sup>st</sup> trimester
- Safe radiation dose = <5-10 rads -----this is pretty high
  - Equivalent of two CT Abdomens.
  - CXR = 5 mRad
  - Pelvic xray – 150 mrad to 2 rads.
- Risk to baby is 0.003%, thousands of times less likely than spontaneous malformation.

# Radiology

- CT
  - CT head + Chest with abdominal shielding = <1Rad of radiation delivered to foetus
  - CT Abdomen = 3 rads
  - CT Pelvis = 3-9 Rads....danger zone.

Bottom line – do what is best for your resuscitation!

# Perimortem C-Section (Resuscitative Hysterotomy)

- When?

# Perimortem C-Section (Resuscitative Hysterotomy)

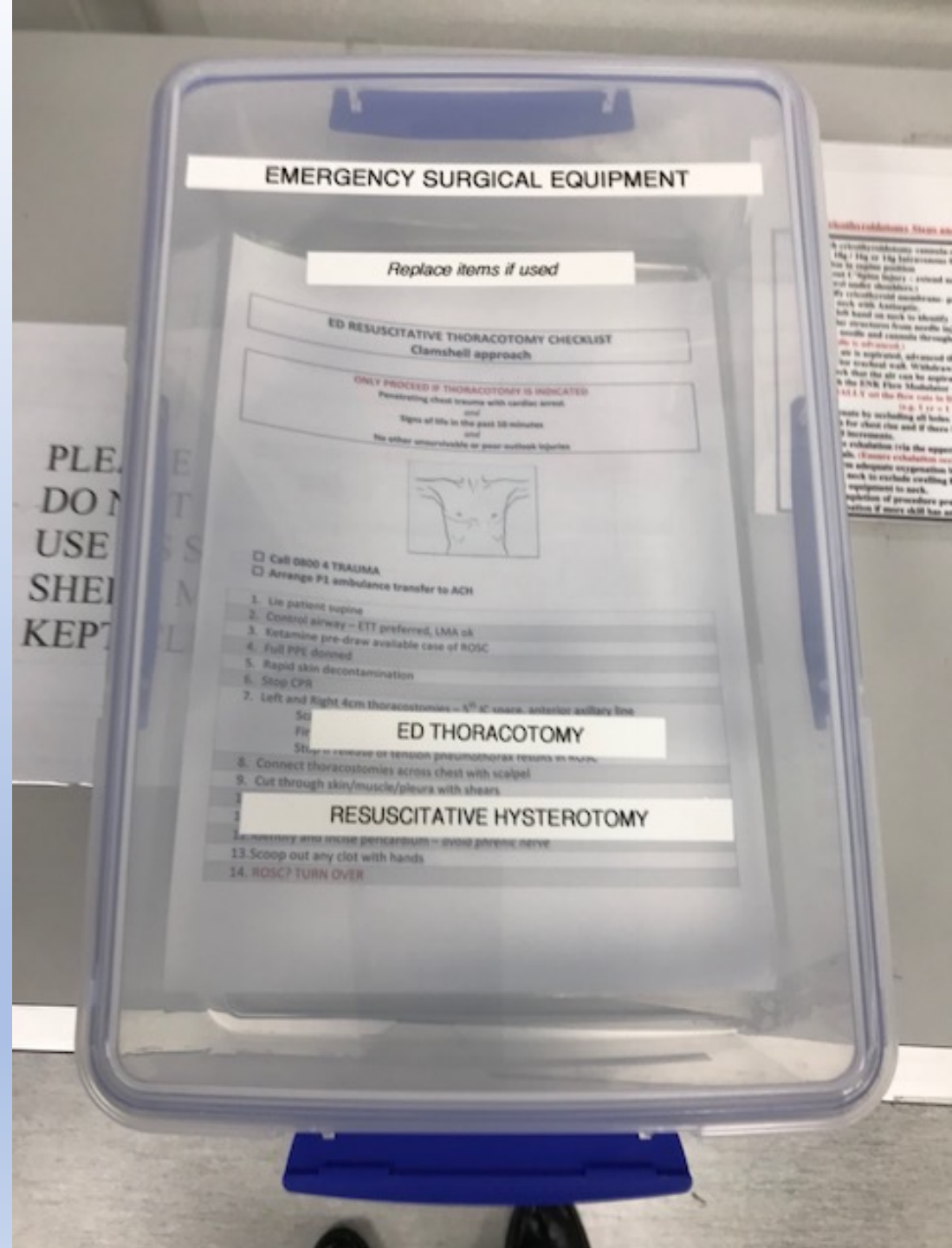
- **Mother in Cardiac Arrest AND fetus >24 weeks ....**

# Perimortem C-Section

## (Resuscitative Hysterotomy)

- Is mother in arrest? **Yes AND fetus >24 weeks** = perimortem c-section.
  - Commence "soon" after cardiac arrest
    - 4-5 minutes gives you the best outcome (Based on Class IIa recommendation, C-level evidence).
    - Survival of mother up to 15 minutes post cardiac arrest.
    - Survival of baby up to 30 minutes post arrest!!





- <https://litfl.com/perimortem-caesarean-section/>