

It's gotta beat, but can you dance to it?



FHR  
Interpretation

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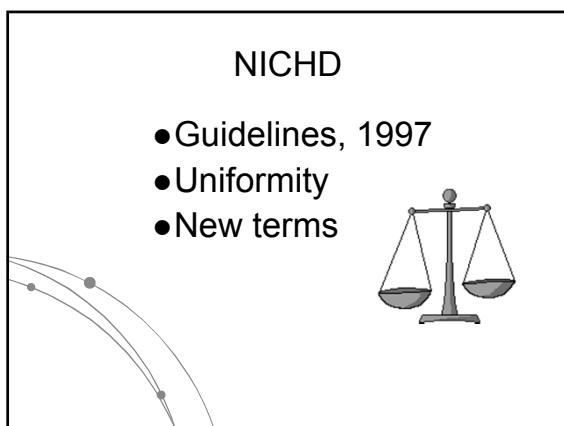
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NICHD

- Guidelines, 1997
- Uniformity
- New terms



Guidelines, 1997

Uniformity

New terms

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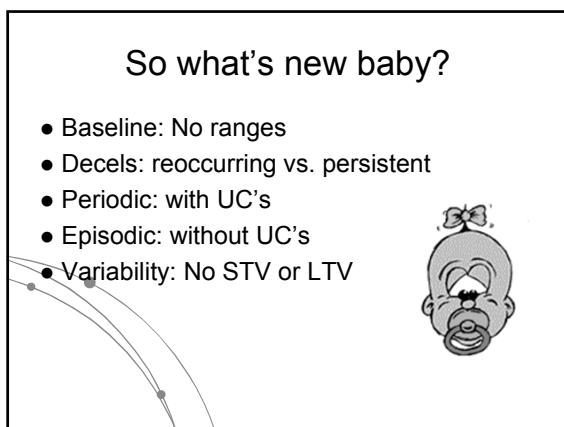
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So what's new baby?

- Baseline: No ranges
- Decels: reoccurring vs. persistent
- Periodic: with UC's
- Episodic: without UC's
- Variability: No STV or LTV



Baseline: No ranges

Decels: reoccurring vs. persistent

Periodic: with UC's

Episodic: without UC's

Variability: No STV or LTV

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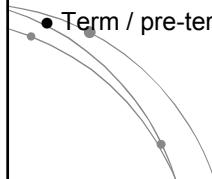
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## Baseline

- Let's start at the beginning
- 110-160
- Over a 10 minute period
- In between UC's, periodic/episodic Δ's
- Term / pre-term influence




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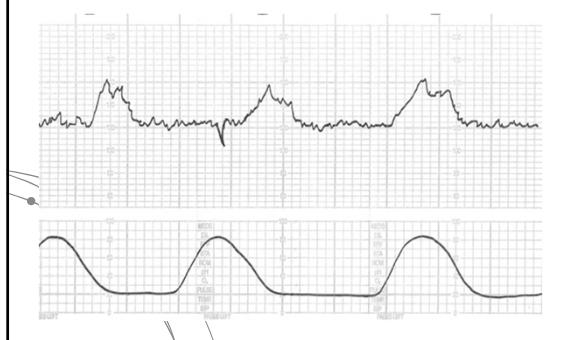


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## Baseline




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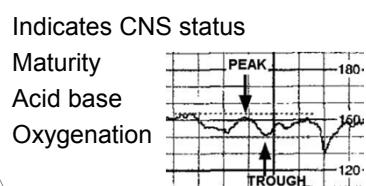
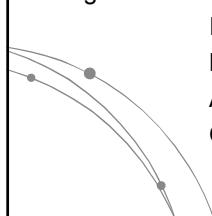
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## Variability

- Sympathetic / Parasympathetic influences
- Oscillations / fluctuations over 10 minutes
- Significance:




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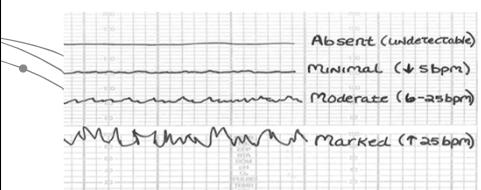


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**I like squiggles!**



- Absent: undetectable / "ruler"
- Minimal: < 5 BPM
- Moderate: 6 to 25 BPM
- Marked: > 25 BPM




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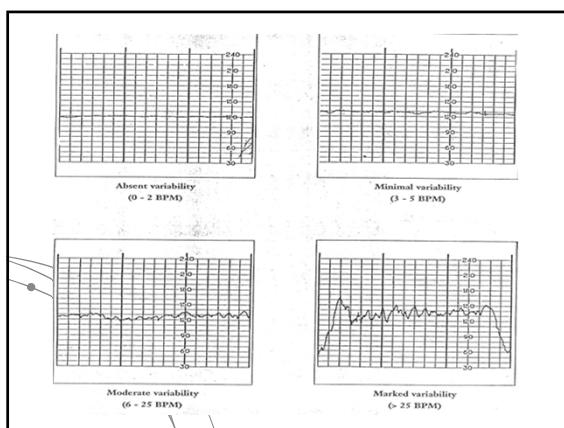
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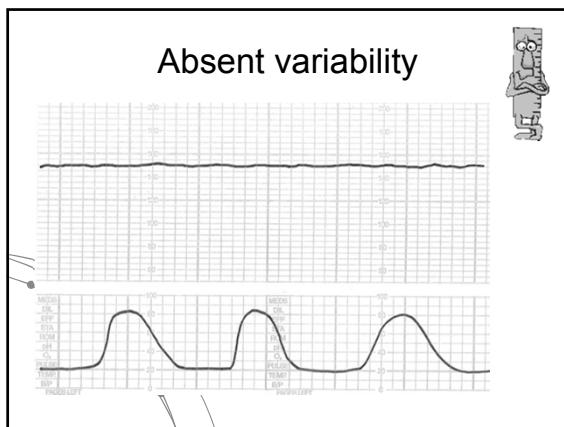
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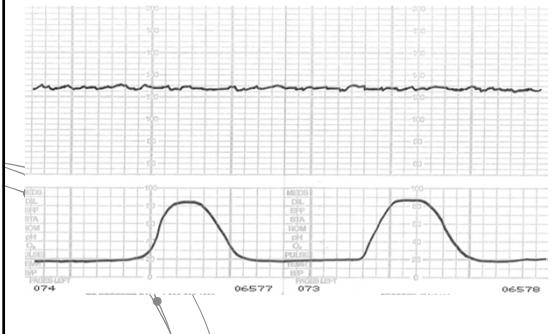


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### Minimal variability



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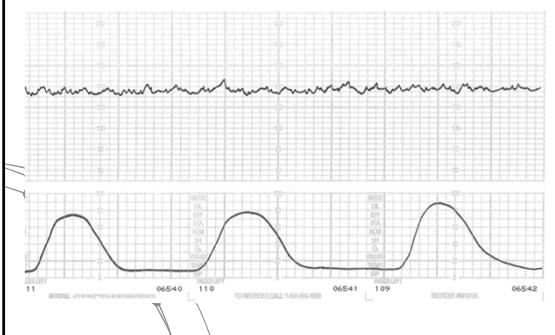
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### Moderate variability



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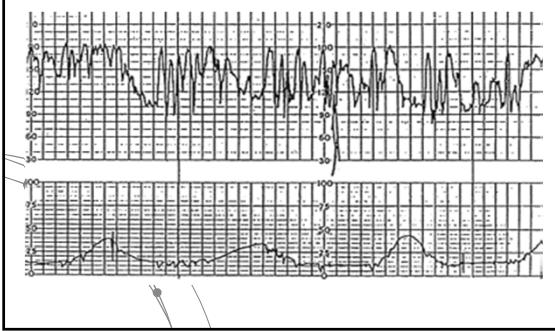
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### Marked Variability



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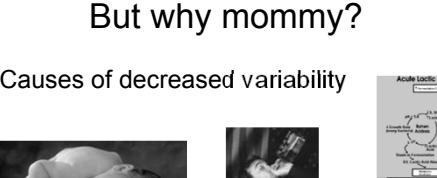
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- # 1 MONITOR assessment of fetal well-being

Document !

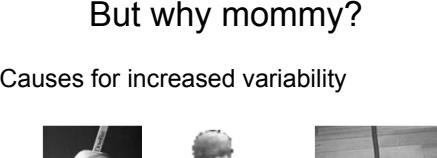


- Causes of decreased variability



The diagram illustrates the Acute Lytic Acidosis cycle, showing the movement of glucose and insulin between the liver and muscle cells. It highlights the role of insulin in glucose uptake and the subsequent release of glucose into the blood by muscle cells during hypoglycemia. The cycle is labeled with 'LIVER', 'MUSCLE', 'BLOOD', and 'GLUCOSE'.

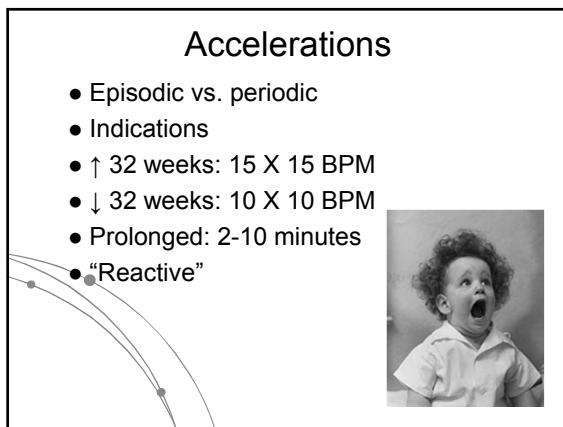
- Causes for increased variability



The slide features three images side-by-side. The first image on the left shows a spoon being lifted out of a bowl of cereal, with the spoonful of cereal suspended in the air. The second image in the middle is a black and white photograph of a baby standing and reaching out. The third image on the right is a black and white photograph of a hangman's noose.

## Accelerations

- Episodic vs. periodic
- Indications
- ↑ 32 weeks: 15 X 15 BPM
- ↓ 32 weeks: 10 X 10 BPM
- Prolonged: 2-10 minutes
- “Reactive”




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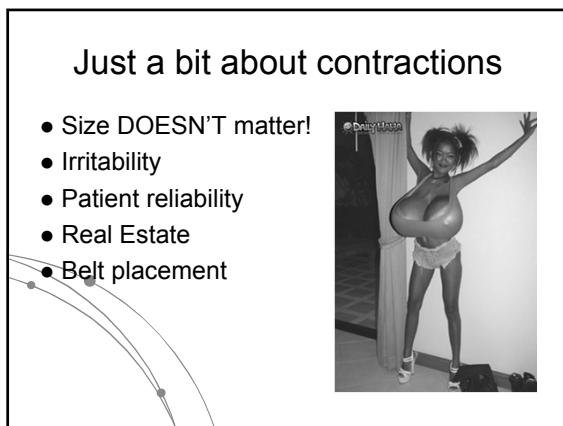
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## Just a bit about contractions

- Size DOESN'T matter!
- Irritability
- Patient reliability
- Real Estate
- Belt placement




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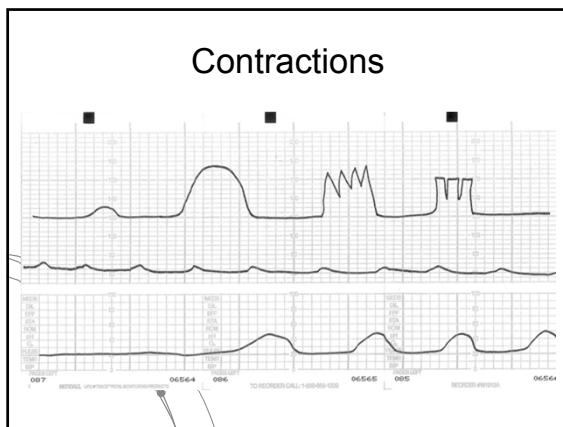
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## Accelerations




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## Decelerations

- Reoccurring: ↑ 50% within 20 minutes
- No “combo” deceleration




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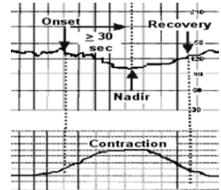
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## Early decelerations

- Etiology
- Characteristics: Uniform in shape “U”, mirror UC's
- Prognosis
- Treatments




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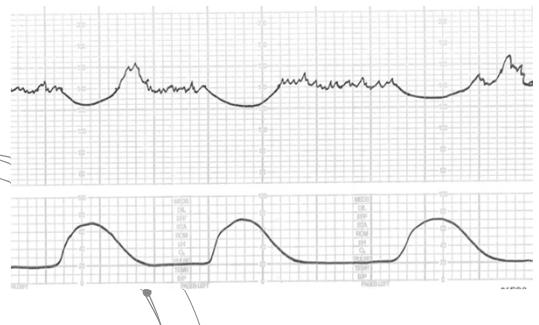


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### Early decelerations




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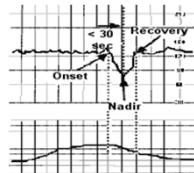
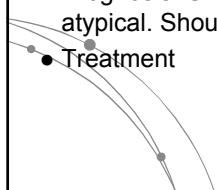
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### Variable deceleration

- Etiology
- Characteristics: Variable in shape/timing, may be "V", "W" or square shaped
- Prognosis: Size does matter! True vs. atypical. Shoulders
- Treatment




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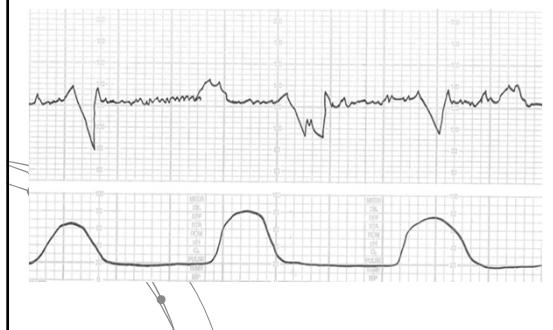


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### Variable decelerations




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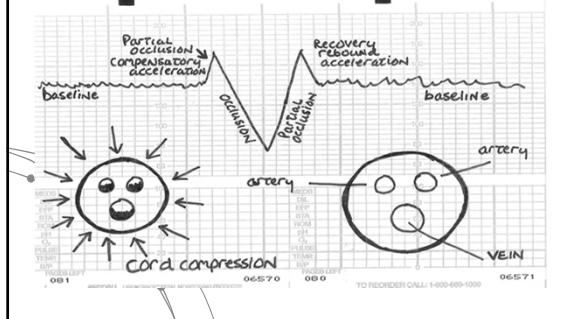


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## What the heck are “shoulders”?




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Mr. Bill




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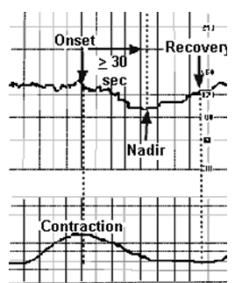
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## Late decelerations

- Etiology
- Characteristics
- Prognosis
- Treatments




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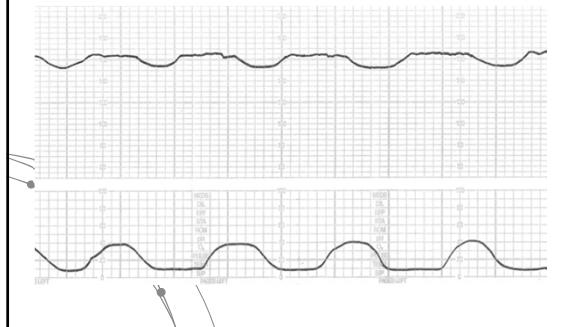


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### Late decelerations



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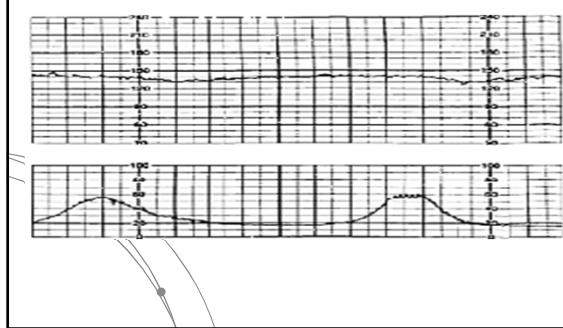
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### Late deceleration



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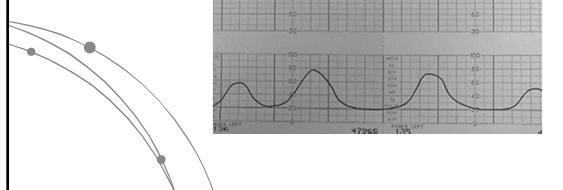
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### Tachycardia

- Definition
- Causes
- Significance



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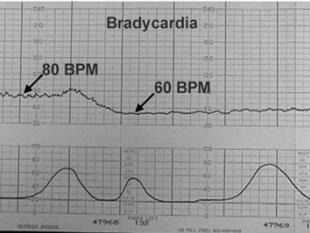
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### Bradycardia

- Definition
- Causes
- Significance



ECG strip showing bradycardia with a rate of 60 BPM and a normal sinus rhythm strip for comparison.

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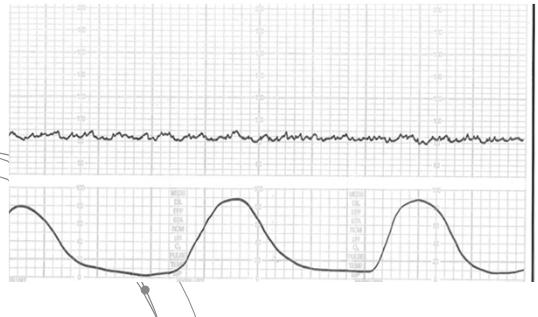
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### Bradycardia



ECG strip showing bradycardia with a rate of 60 BPM and a normal sinus rhythm strip for comparison.

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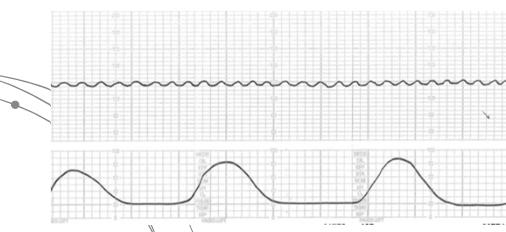
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### Sinusoidal

- True vs. pseudo
- Significance



ECG strip showing sinusoidal rhythm with a rate of 60 BPM and a normal sinus rhythm strip for comparison.

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Keep it simple baby

Reassuring? Not reassuring?



• No idea? Describe it

- Fax strips
- Document treatments and *responses*

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Transport considerations

- ACOG timing
- Doppler
- Obesity
- FM
- Multiple gestations
- Continuous monitoring?




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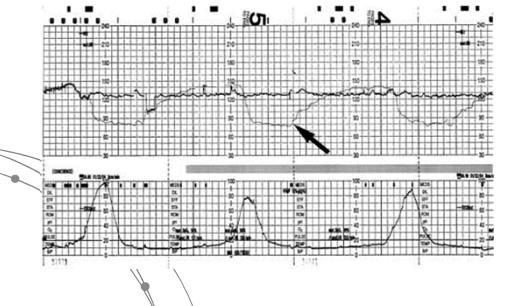


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Strip reviews




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## Answer?

- Twin tracing: one twin in reassuring the other twin has VARIABLE decelerations.
- Hint: they are square in shape and do not start after the peak of the contraction
- Interventions?




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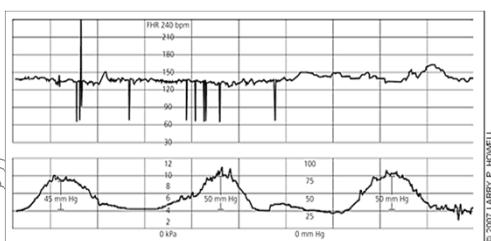


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## Strip # 2



Reassuring or not reassuring?

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## Answer

- Reassuring FHR tracing
- Hint: moderate variability and accelerations
- Fetal arrhythmia
- Interventions?




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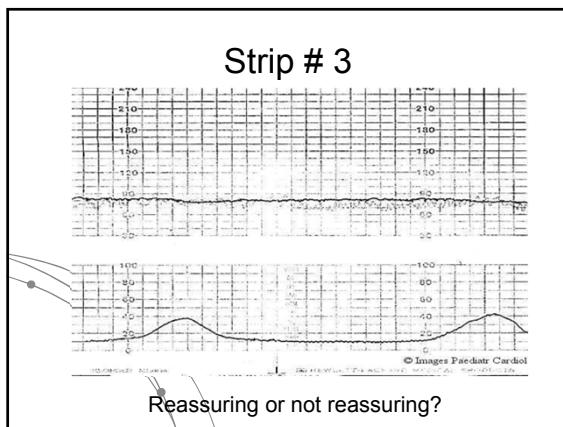
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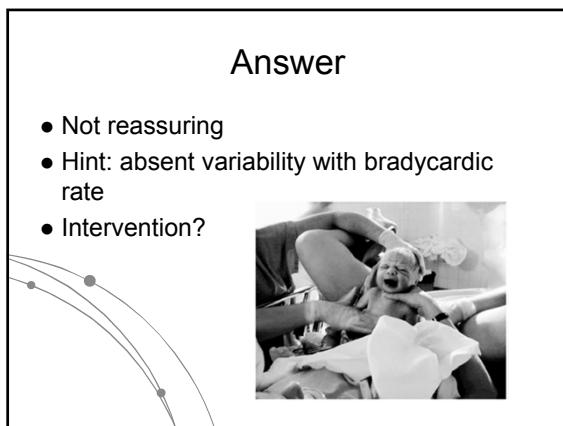
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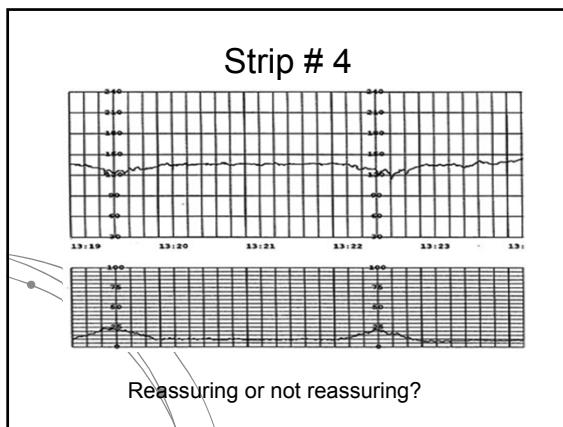
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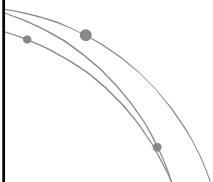
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### Answer

- Questionable
- Hint: Minimal variability (sleep pattern?)
- Early decel: etiology?
- Intervention?




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### Strip # 5




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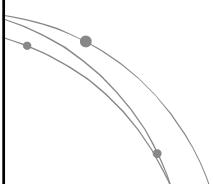
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### Answer

- Reassuring
- Hint: Moderate variability with accelerations
- Interventions?




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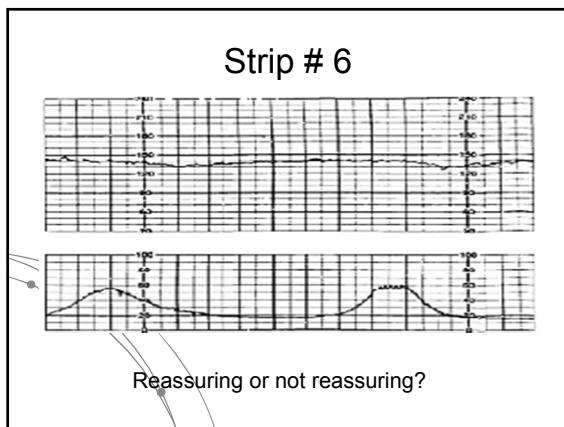
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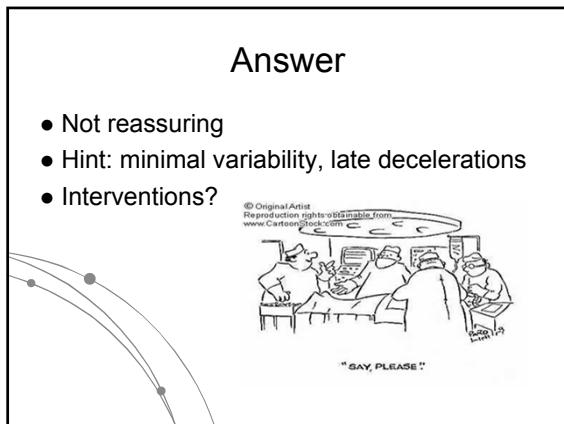
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