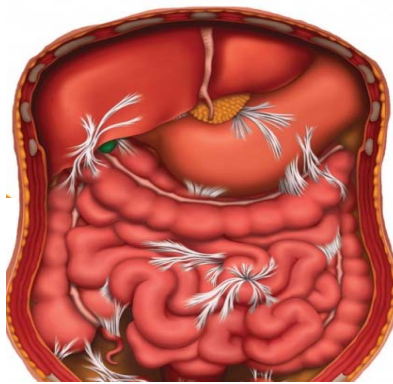


The Difficult Cesarean Section



Mara Sobel MD MSc FRCSC
Assistant Professor, Mount Sinai Hospital

Adhesions



Adhesions

- Surgery difficult
- Inadvertent injury
- Increased bleeding



Adhesions

- Surgery difficult
- Inadvertent injury
- Increased bleeding



- Delay in delivery
 - Mean delivery time (16 vs. 20 min)
 - Undelivered at 30 minutes (5 vs. 18%)

Risk Factors

- Previous Cesarean section (N = 15 479)

- None 10%
- One 37%
- Two 42%
- Three 59%



Hesselman et al. 2017

Risk Factors

- Myomectomy
- Endometriosis
- Ruptured appendicitis



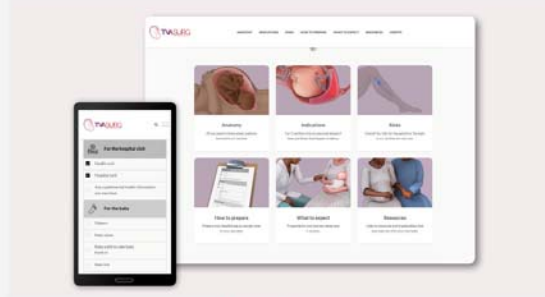
At-risk Patients

- Detailed patient consent
- Weekday elective spot
- Skilled assist
- Available consultants



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**PATIENT TEACHING:
CESAREAN SECTION
(C-SECTION)**

LAUNCH WEBSITE

www.tvasurg.ca

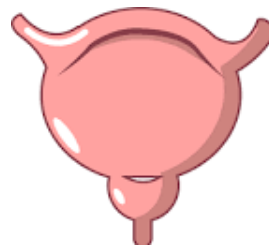
Surgical technique: entry

- Sharp
- Shallow incisions
- Enter peritoneum
 - High
 - Laterally
 - Bluntly
 - Early



Surgical technique: bladder

- Identify the bladder:
 - Retrograde fill
 - Pull up Foley balloon
- Lateral to medial
- High uterine incision
- Bladder injury:
 - Easy identify
 - Straightforward repair
 - Call for help if near trigone



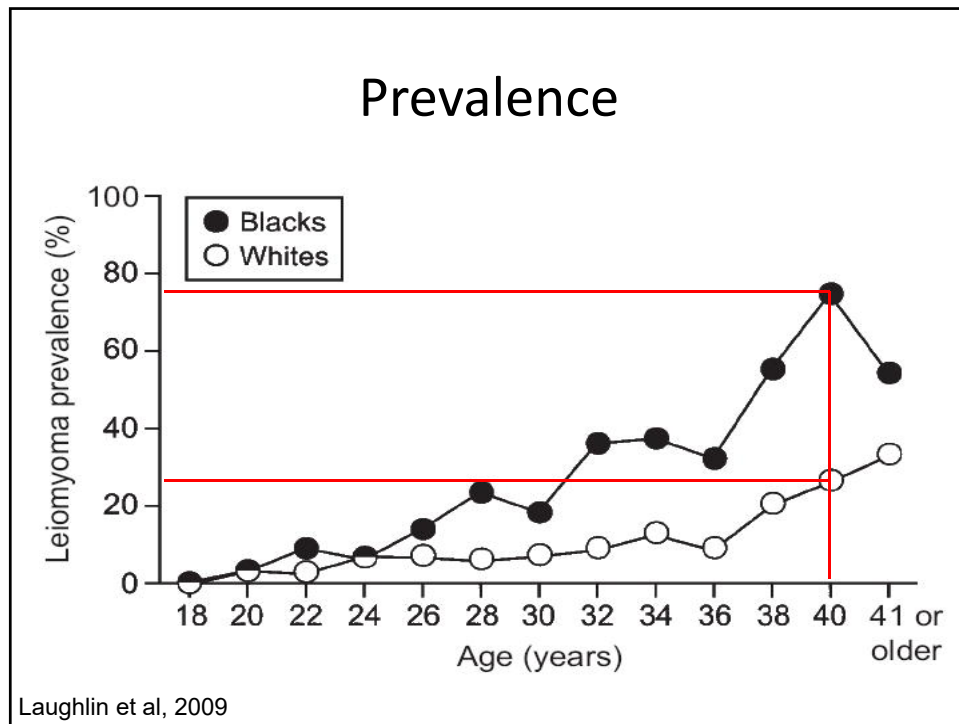
Surgical technique: bowel

- Sharp dissection
- Change uterine incision
- Avoid exteriorizing
- Bowel injury:
 - Difficult to identify
 - Late detection serious
 - Call for help



Fibroids



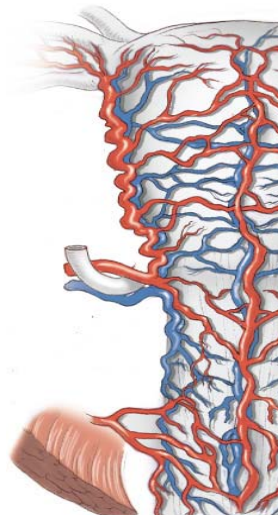


Fibroids at Cesarean section

- Prevalence in pregnancy:
 - 10-20%
- Challenging:
 - Distort anatomy
 - Block incision
 - Prevent closure
 - Hemostasis

Cesarean Myomectomy

- Traditionally avoided
 - ~20% cardiac output
 - Poor patient outcomes
 - PPH
 - Transfusion
 - Hysterectomy



Cesarean Myomectomy

- Reserved
 - Fibroids within the incision
 - Large pedunculated



Avoiding Cesarean Myomectomy

- Ultrasound mapping
- Skin incision
- Uterine incision
- Baby

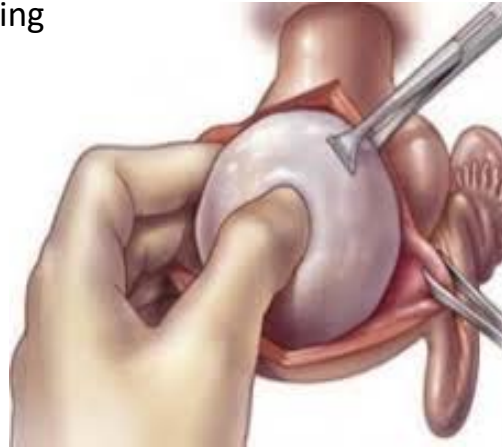


Cesarean Myomectomy

- Systematic review (17 studies, 6545 women)
 - 1843 cesarean
 - 4702 cesarean myomectomy
- Increase (clinically insignificant):
 - Blood loss
 - Operative time
 - Hospital stay

Cesarean Myomectomy

- Elective Cesarean myomectomy
 - Appropriate counseling
 - Surgeon experience



Appropriate Counseling

- Informed consent
 - Incision
 - Bleeding/transfusion
 - Post-operative complications
 - Surgeon dependent
 - Abandon/proceed myomectomy
 - Hysterectomy



Surgeon Experience

- Surgeon confidence/experience
- Hospital
- Access to help
- Timing



Technical considerations

- Pre-operative hemoglobin
- CSE
- Skin incision
- Uterine incision
- Medications
- Blood products
- Internal iliac artery ligation
- Cell saver

