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 CRASH 2016

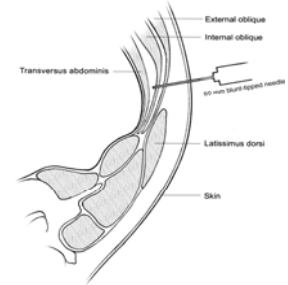
Transversus Abdominis Plane Blocks



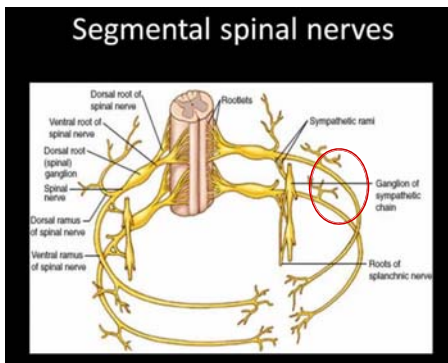
SCHOOL OF MEDICINE
 Department of Anesthesiology
 UNIVERSITY OF COLORADO ANSCHUTZ MEDICAL CAMPUS

What is a TAP block?

- It is NOT a peripheral nerve block
- It is a field block
- It provides analgesia to the anterior abdominal wall.

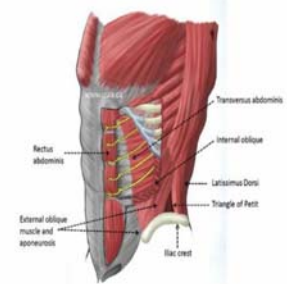


Segmental spinal nerves



What is it good for?

- Cholecystectomy
- Appendectomy
- Hernia repair
- Renal transplant
- Colorectal procedures
- Flaps
- C section
- Abdominal hysterectomy
- Radical prostatectomy

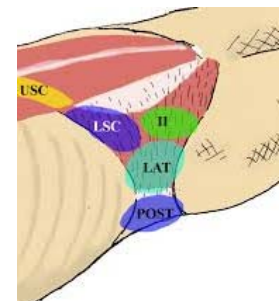


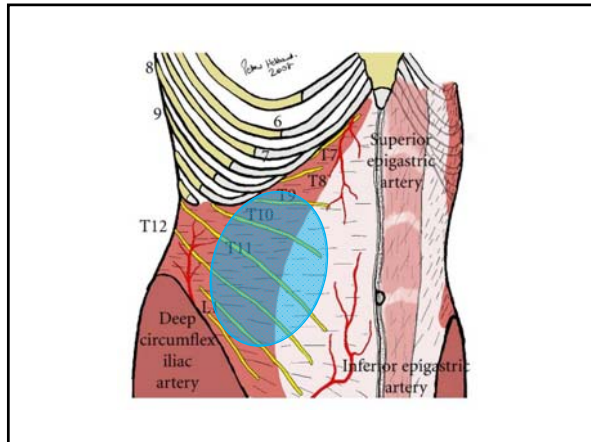
TAP Block

- Good addition to multi-modal analgesia when thoracic epidural is contraindicated or not desired
- They provide analgesia to the abdominal wall, not viscera or skin.
 - There will be NO "level" or sensory dermatome
 - Put the Ice pack away!
- Will need additional pain meds post-op and intra-op

TAP injection sites

- Initial studies T7 to L1 on Lateral approach
- Realistically...
 - Above Umbilicus
 - T7-10
 - Subcostal approach
 - Below Umbilicus
 - T10-L1
 - Lateral Approach
- Anterior abdominal wall
 - muscles and parietal peritoneum





Landmarks

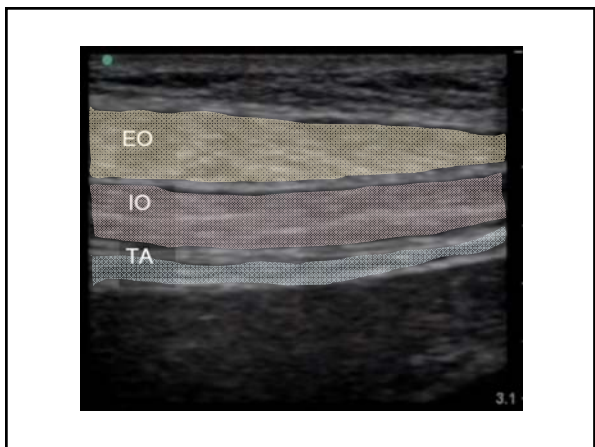
- Rafi (2001)
 - 'double pop'
 - LOR
- Triangle of Petit
 - 4-8cm²
- Costal margin
- Iliac crest

Lumbar triangle of Petit between external oblique muscle and latissimus dorsi.
CM: costal margin, IC: iliac crest.

Lateral TAP

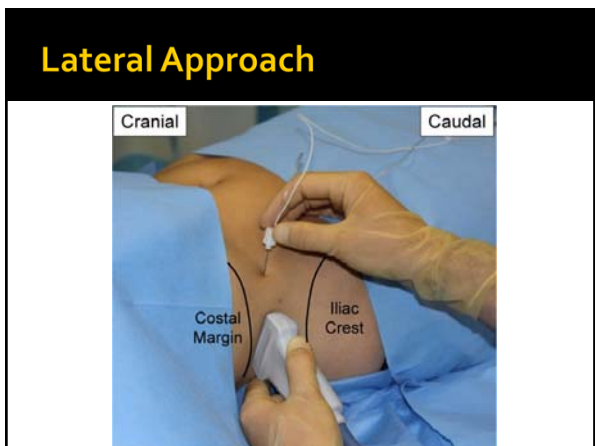
- For below umbilicus incision
- Three layers
 - Ext oblique
 - Int oblique
 - Transversus abdominis

Topographic Anatomy



Subcostal TAP

- For incisions above umbilicus
- Two Layers
 - Rectus Abdominis
 - Transversus Abdominis



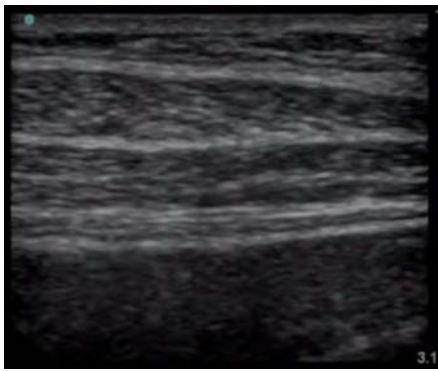
The block

- US-high frequency probe 5-10 Hz
- Needle-10cm short bevel
- LA-bupivacaine 2mg/kg (80kg= 160mgs=32mls of 0.5%)
 - 20 mls a side
- Complications
 - Failure
 - LA toxicity
 - Intraperitoneal, bowel, liver perforation.

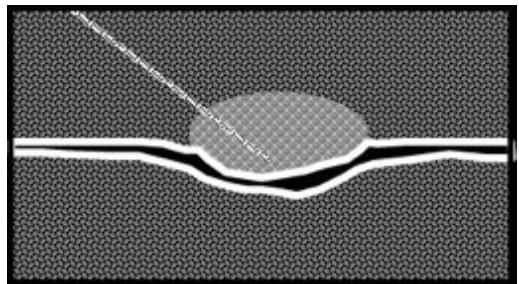
Subcostal Approach



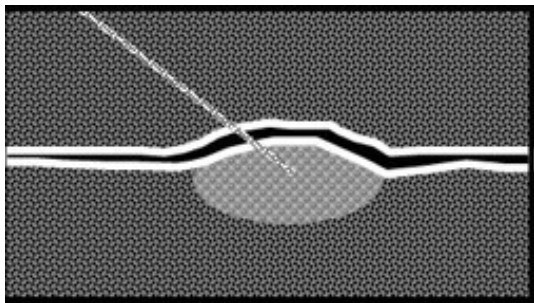
http://www.intechopen.com/books/abdominal_surgery/abdominal_surgery_advances_in_the_use_of_ultrasound_guided_truncal_blocks_for_perioperative_pain_man



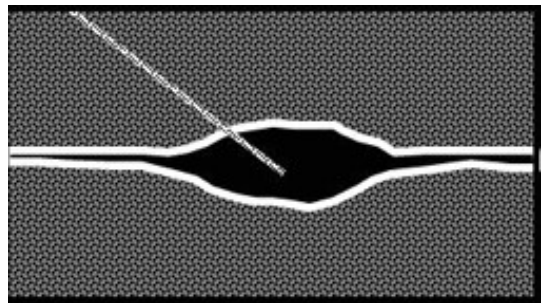
Too shallow...



Too deep...



TAPtastic!



Three Pearls: TAP Block

- Subcostal – Above umbilicus, Lateral below
- Analgesia to anterior abdominal wall, not skin or viscera
- Volume block!
 - (Also, Bolus catheters)

References:

- McDonnell, J.G. et al. (2007) Transversus abdominis plane block: a cadaveric and radiological evaluation. *Reg Anesth Pain Med*; 32: 399-404.
- Rafi, A.N. (2002) Abdominal field block: a new approach via the lumbar triangle. *Anaesthesia*; 56: 1024-1026.
- Townsley, P.T. and French, J. (2011) Transversus abdominis plane block. *ATOTW* 239 <http://www.aagbi.org/node/1422> accessed 2.2.2016.
- Yarwood, J. and Berrill, A. (2010) Nerve blocks of the anterior abdominal wall. *Continuing Education in Anesthesia, Critical Care and Pain*, <http://ceaccp.oxfordjournals.org/content/10/6.toc> accessed 2.2.2016.