OSTEOARTHRITIS OF THE KNEE

SUPPORTING YOUR PATIENT BEFORE AND AFTER SURGERY

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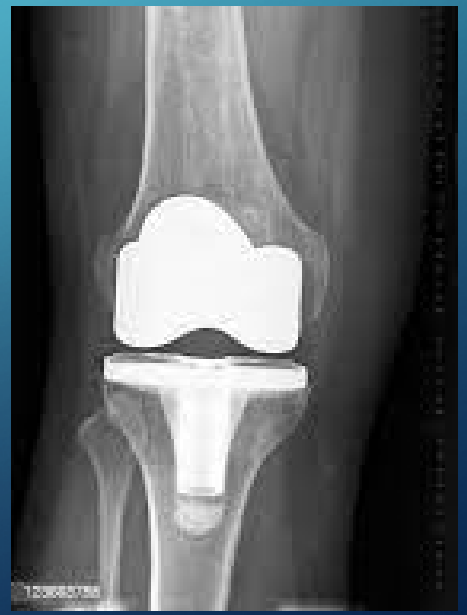
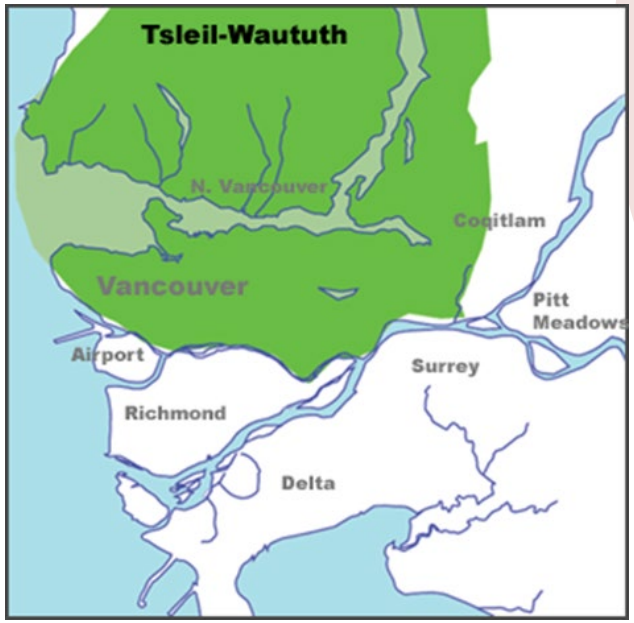
JAN 10, 2023



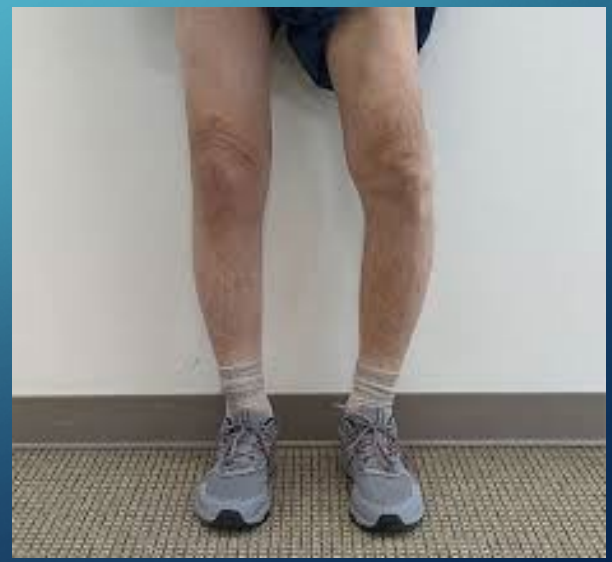
We would like to acknowledge that we are gathered today on the traditional territories of the Musqueam, Squamish and Tsleil-Waututh peoples.

Source: www.johomaps.net/na/canada/bc/vancouver/firstnations/firstnations.html



LEARNING OBJECTIVES

- Non-surgical treatment options to manage knee arthritis
- Pre-operative investigations
- Medical optimization prior to surgery
- Post-operative management



DISCLOSURES

- None relevant to this presentation

NON-SURGICAL TREATMENT

- Surgery always last resort
- Exercise/ weight loss
  - one of the most effective treatments
  - Referral clinics to help treat obesity
- Analgesics
  - Anti-inflammatories more effective than Tylenol
  - AVOID narcotics

NON-SURGICAL TREATMENT

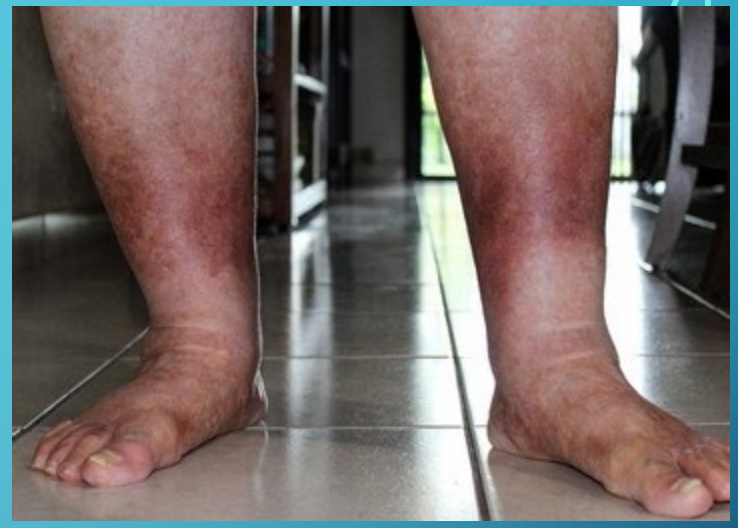
- ***Walking aids***
- Bracing – unloader
- Injections
  - Steroid
    - Shorter term relief
  - Viscosupplementation
    - Very good literature support
  - PRP
    - Mixed support
- Central intake clinic
  - Offer multiple treatments at one setting

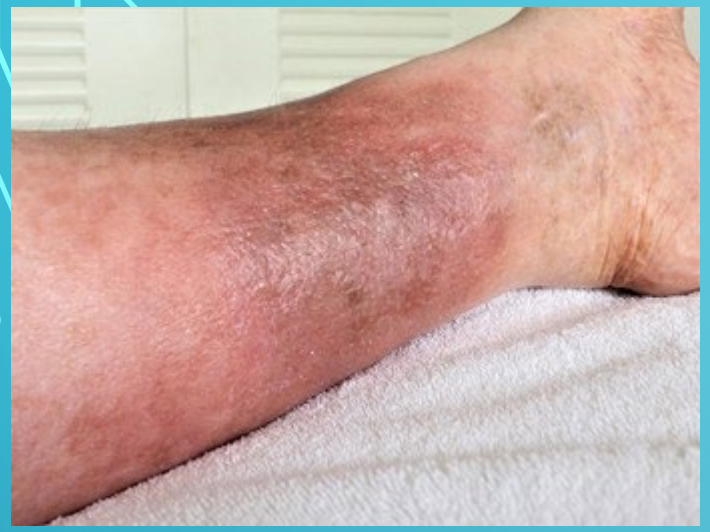
PRE-OPERATIVE INVESTIGATIONS

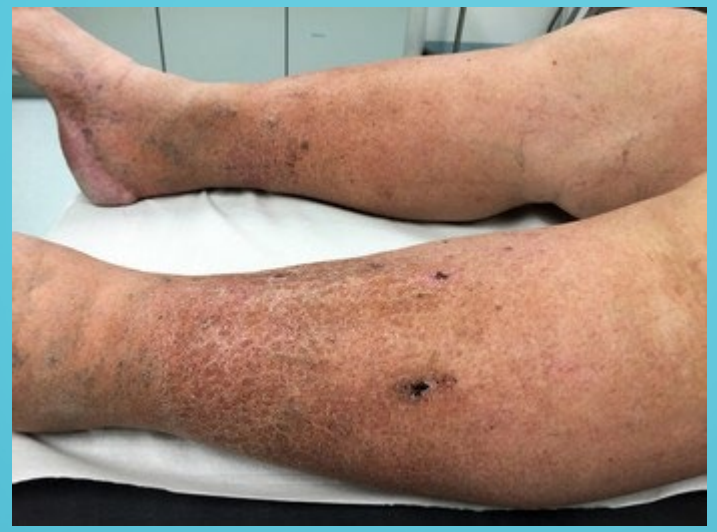
- ***Standing*** X-rays – only test needed
  - AP, lateral, skyline view
- MRI scan ***NOT*** required
  - **Useless** in vast majority of cases
  - ***Not*** needed for referral
  - Pathology found in pts > 50

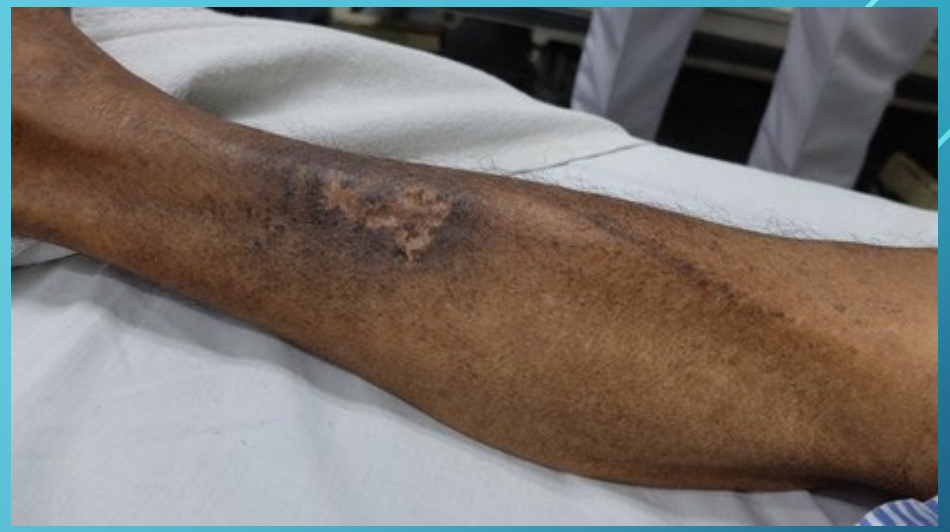
MEDICAL OPTIMIZATION

- Encourage patients to lose weight
  - much higher risks BMI > 40
  - Specialized clinics
- Diabetic patients – optimize blood sugars
  - ***HbA1c less than 7.5***
- Optimize other medical co-morbidities
  - Cardiac/ respiratory issues
  - Smoking cessation





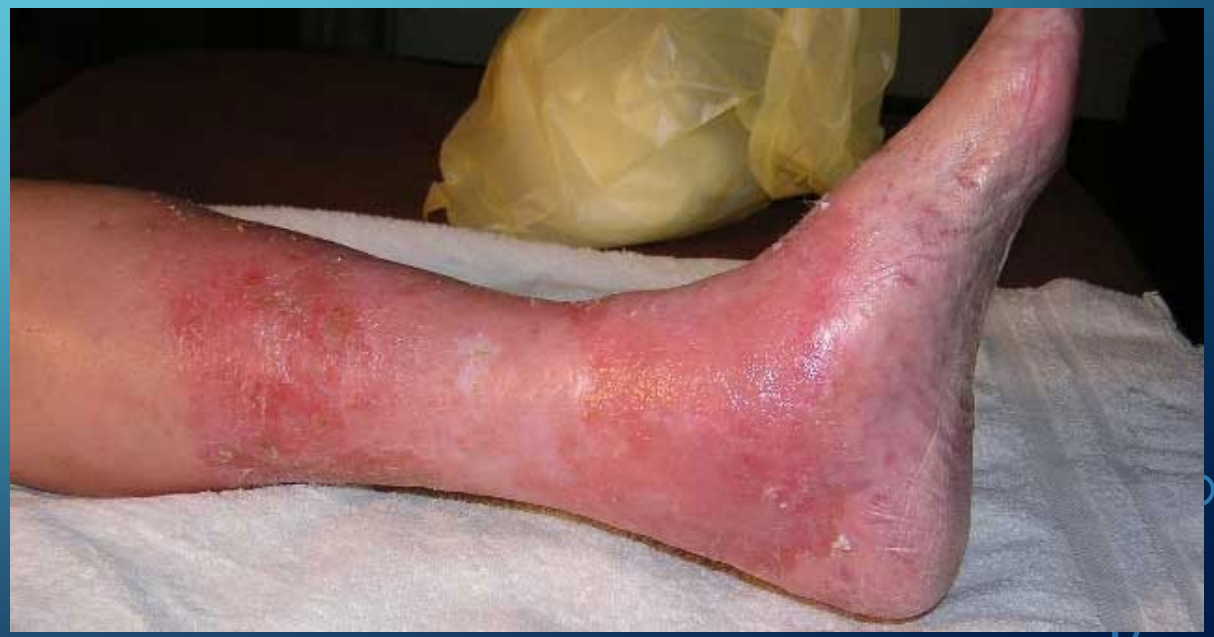




Control lower extremity edema

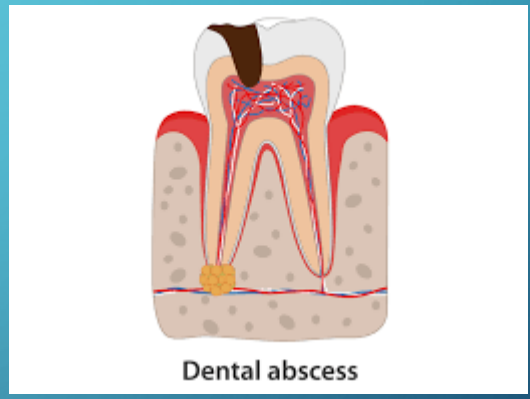
- Diuretics
- Compression socks

No open wounds!



OTHER CAUSES OF SURGICAL DELAY

- Infections elsewhere in the body
  - UTI
  - Dental
  - Ulcers
- Recent injection into joint
  - Delay surgery at least 3 mos
- Recent surgery elsewhere



FACTORS AFFECTING RECOVERY

- Patient expectations
  - ***Preop education***
  - Pain is normal – particularly with knees
  - Improvement for 1-2 yrs after surgery
  - Total knee is NOT a normal joint
  - Up to 15% of patients ***not*** satisfied
  - Knees will click
  - Kneeling very difficult
  - Stairs can be difficult

FACTORS AFFECTING RECOVERY

- Psychological/psychosocial factors
  - Good home supports
  - Depression/anxiety – important to treat
  - Multimodal pain management strategies
  - Coping strategies to manage pain

POST-OPERATIVE MANAGEMENT

MEDICAL MGMT. - DVT PROPHYLAXIS

- ASA for most patients (162 mg daily)
  - 14 days for TKR
  - 28-35 days for THA
- Other options – higher risk patients
  - LMWH
  - Rivaroxiban
  - combinations

DVT PROPHYLAXIS

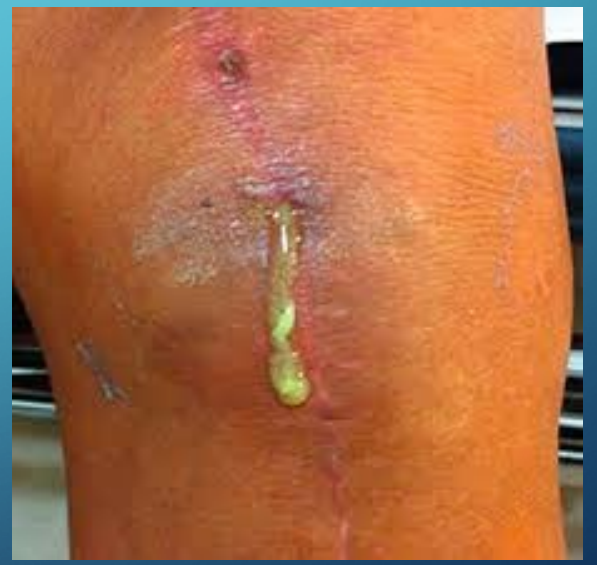
- Consider LMWH or Rivaroxiban
- High risk patients
  - Prior DVT/ PE
  - Malignancy
  - Morbid obesity
  - Revision surgery

PHYSIOTHERAPY

- Very important after TKR
- Home exercises on booklet
- Start PT after staples removed
  - Patients have 10-12 visits covered

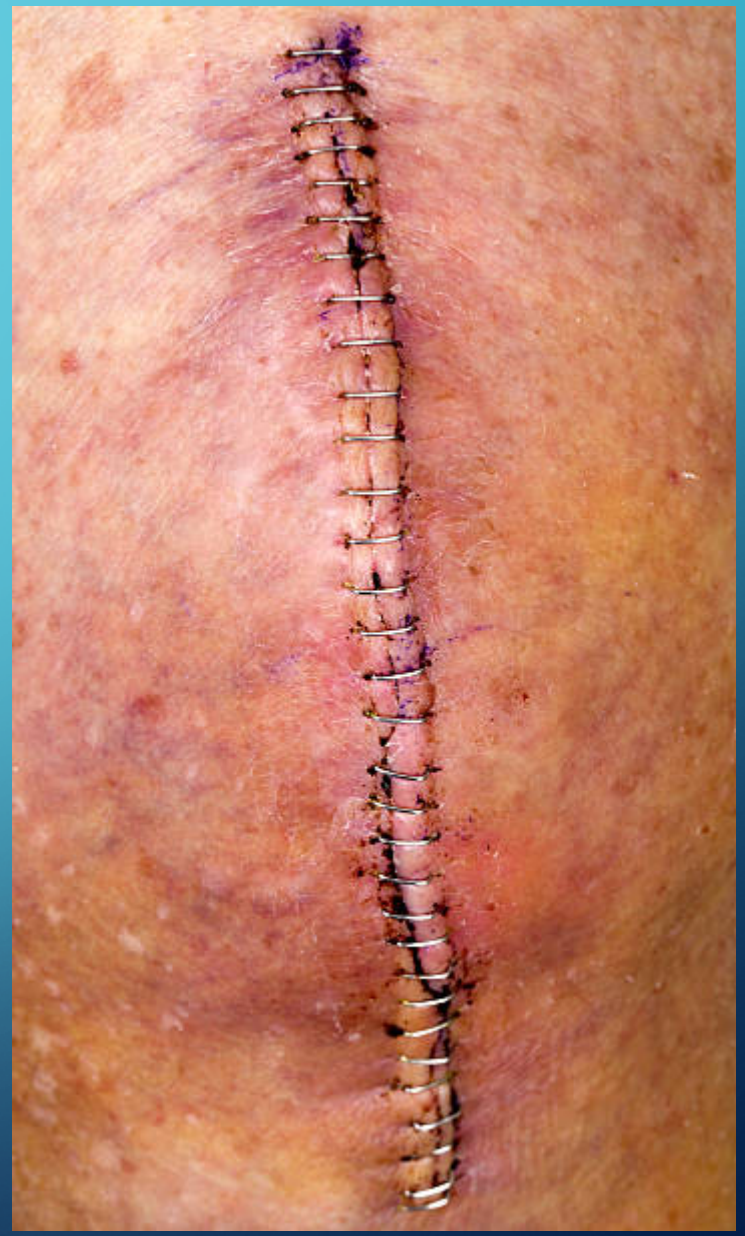
EARLY INFECTION AFTER TKR

- **Catastrophic complication** – significant morbidity
- General signs of infection
  - Fever
  - pain
  - Erythema
  - Warmth
  - Wound drainage
  - Severe swelling



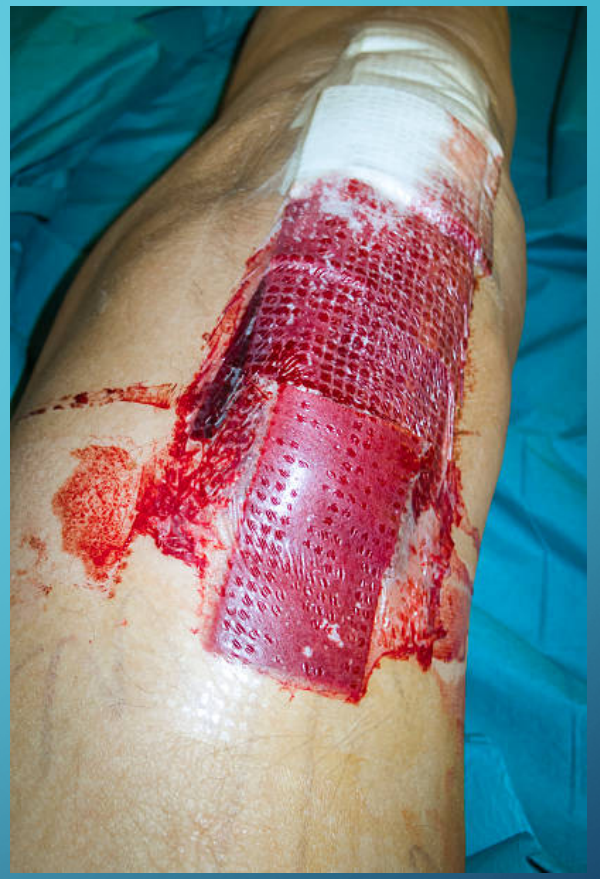
WOUND CARE – EARLY POST-OP

- **Normal findings**
  - Swelling
  - Bruising
  - Blisters
  - Warmth
  - Pain
  - Fever early after surgery
    - Up to 3 days



WOUND CARE

- Abnormal findings
  - Significant wound drainage
  - Wound should be DRY by 7 days post-op
  - Cellulitis (distinguish from bruising/hematoma)



The number one sign of an acute post-operative infection is ***prolonged wound drainage!***

POST-OP INFECTION - INVESTIGATIONS

- Bloodwork
  - CRP
    - Most useful test
    - Rises early and peaks by 2-3 days post op
    - Usually normal by 3wks post op
  - ESR and WBC not as useful
  - Swabbing wound **not** useful

POST-OP INFECTION SUSPECTED

- Do NOT start antibiotics!
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- Do NOT start antibiotics!
- Do NOT aspirate the joint

Contact treating or on-call surgeon as soon as possible

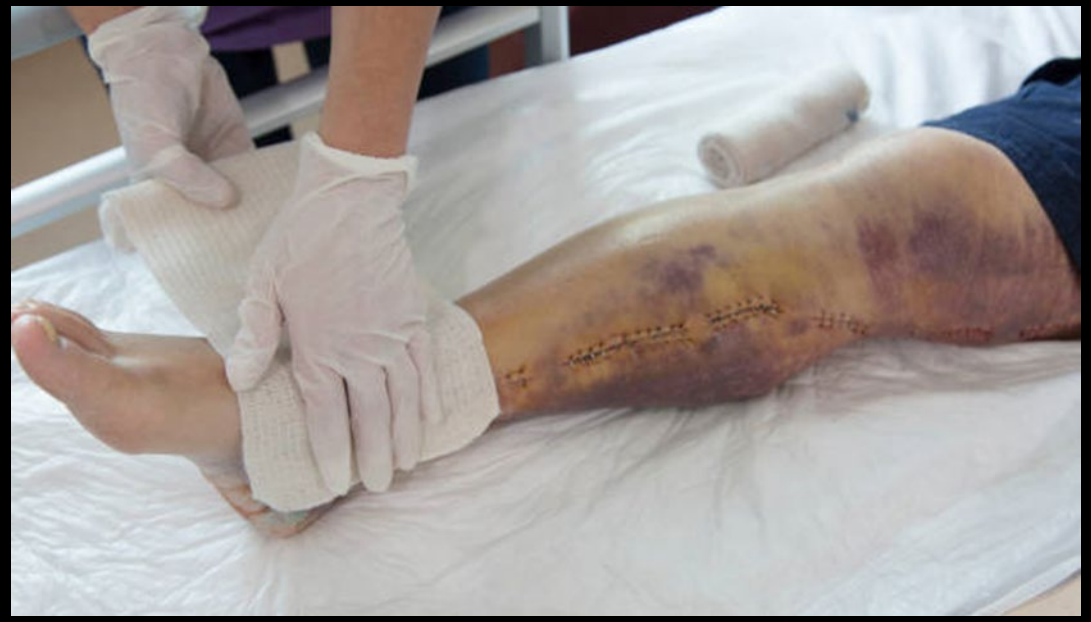
POST-OP WOUND DRAINAGE

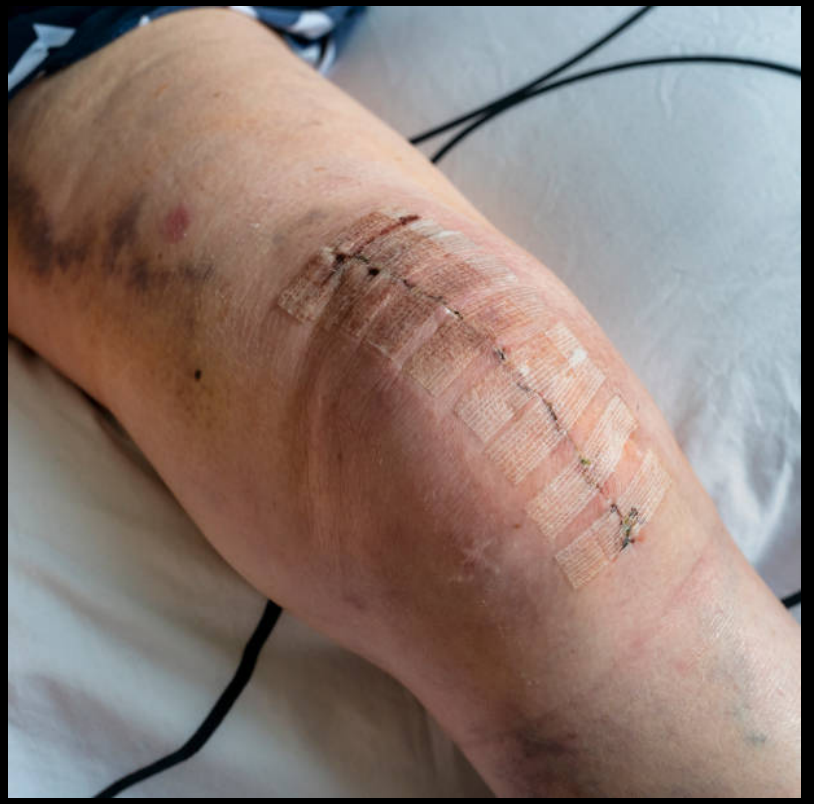
- For each day of wound drainage after day 5:
  - 29% increased risk of infection for TKR

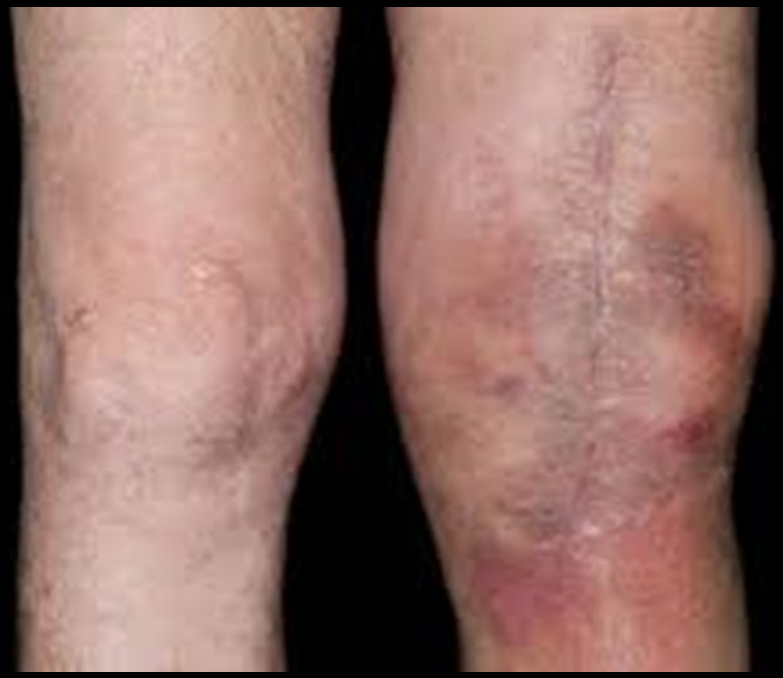
- proceed with urgent surgery if drainage persists for more than 5-7 days after surgery

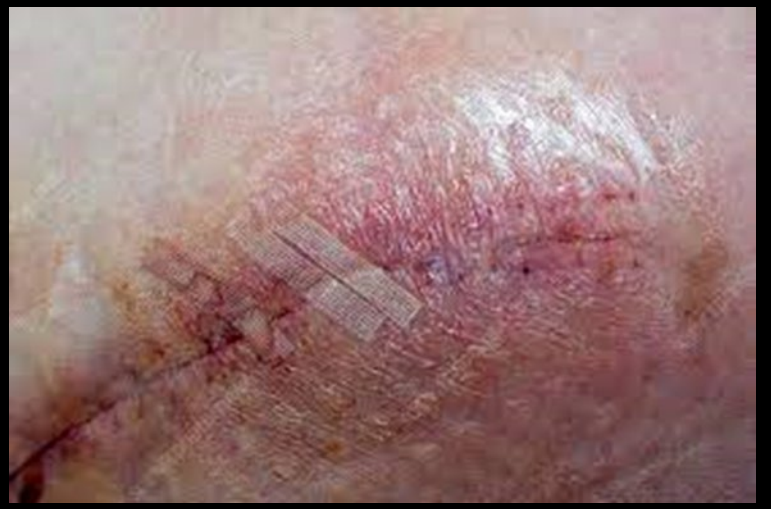
ACUTE POST OP INFECTIONS

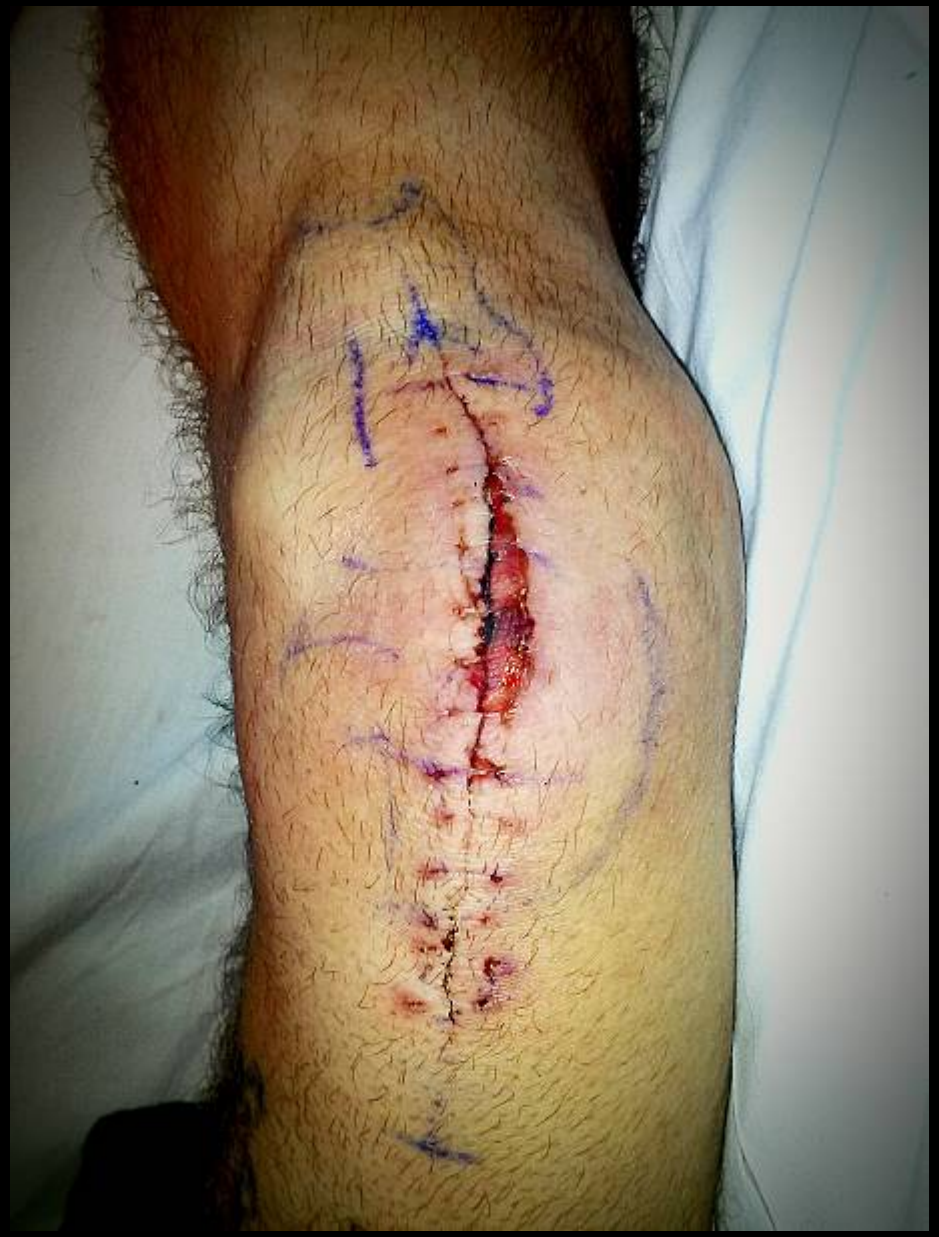
- Needs to be treated with urgent surgery
- Antibiotics will ***not*** be enough
  - they can affect culture results which affects abx treatment
  - No urgency to starting abx

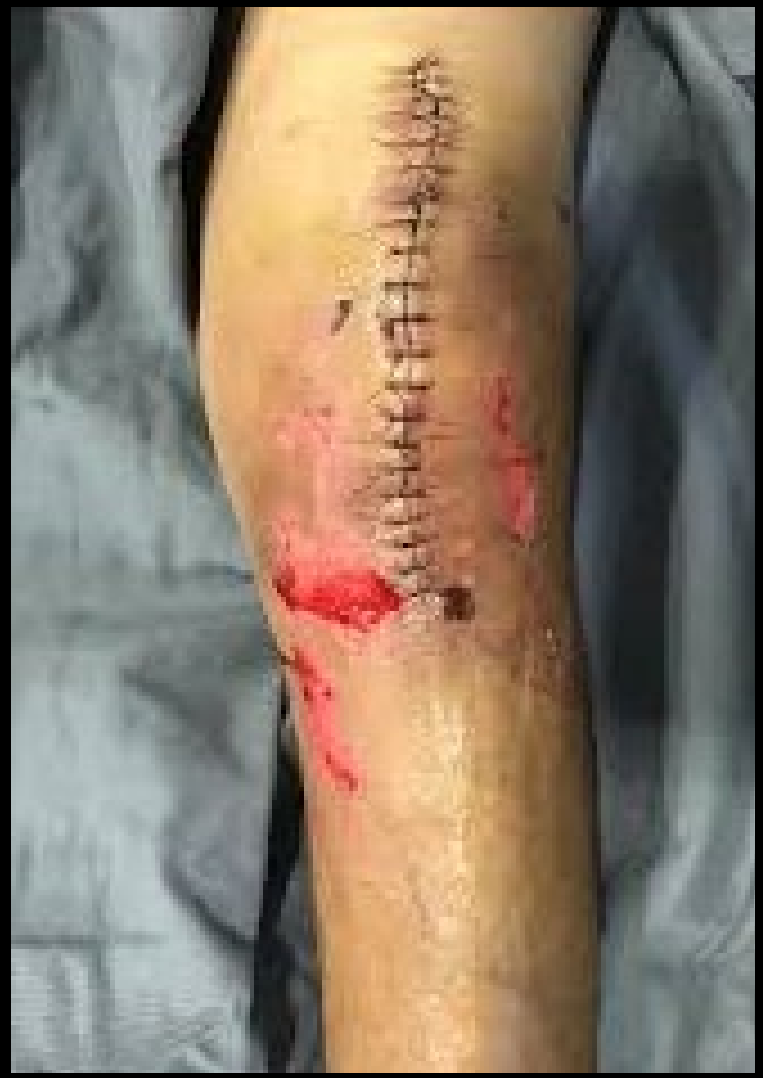


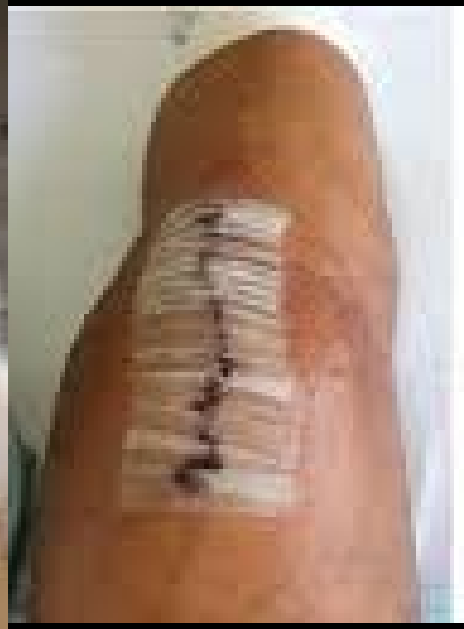
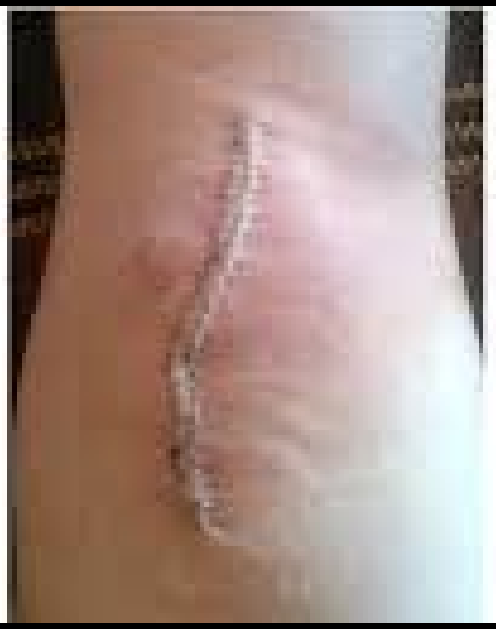


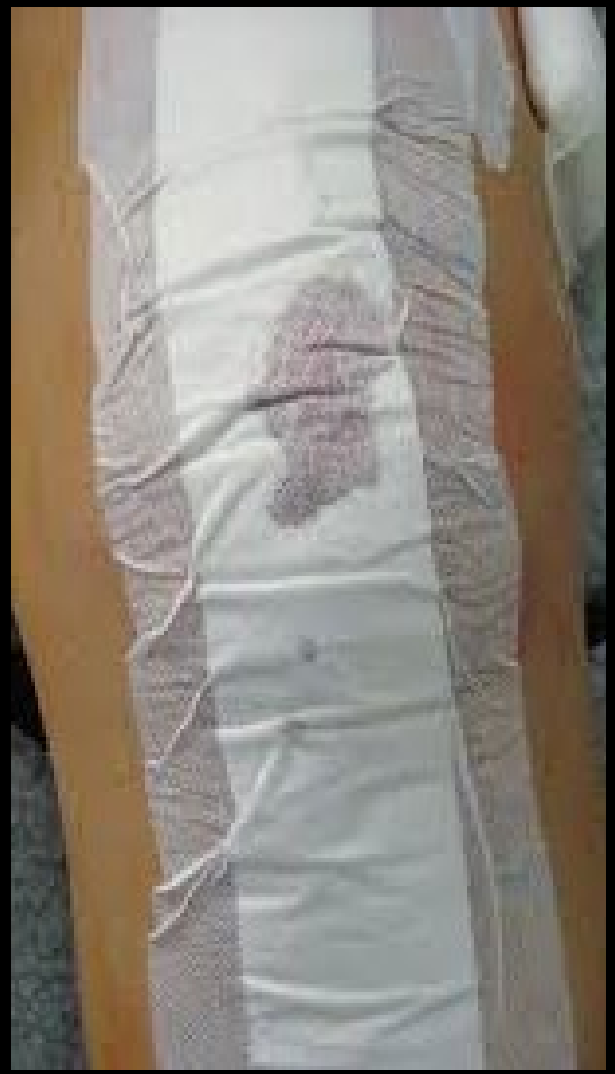


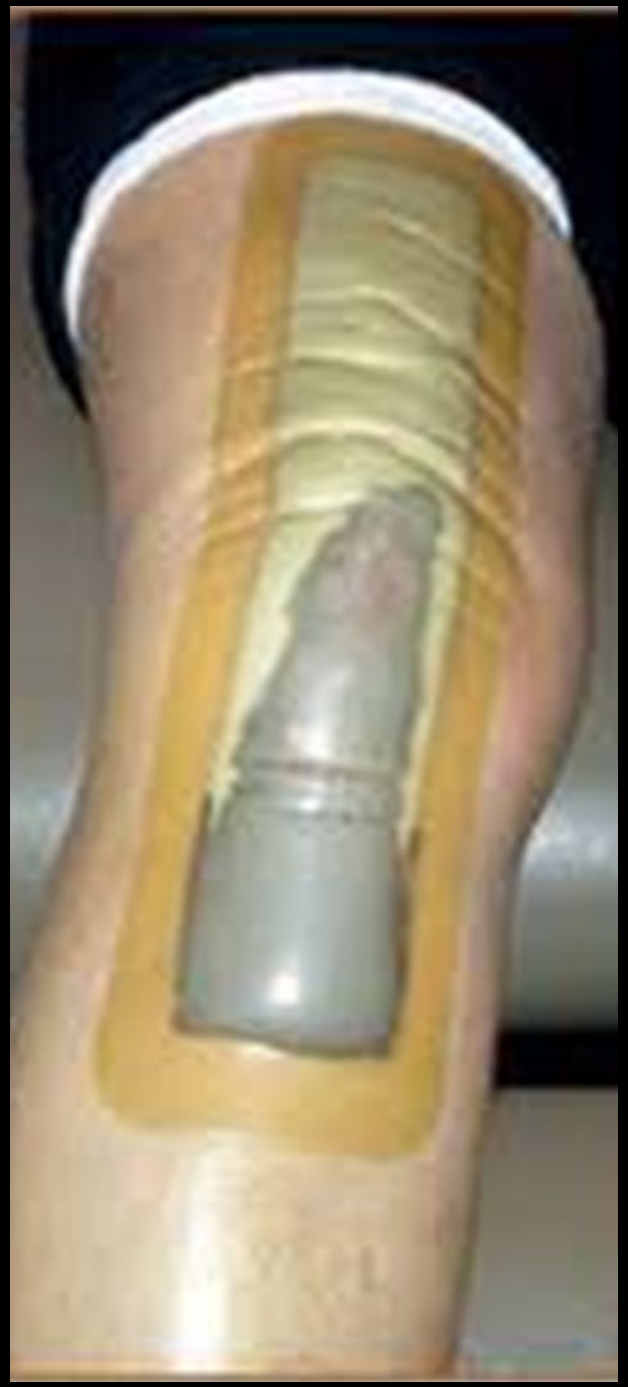


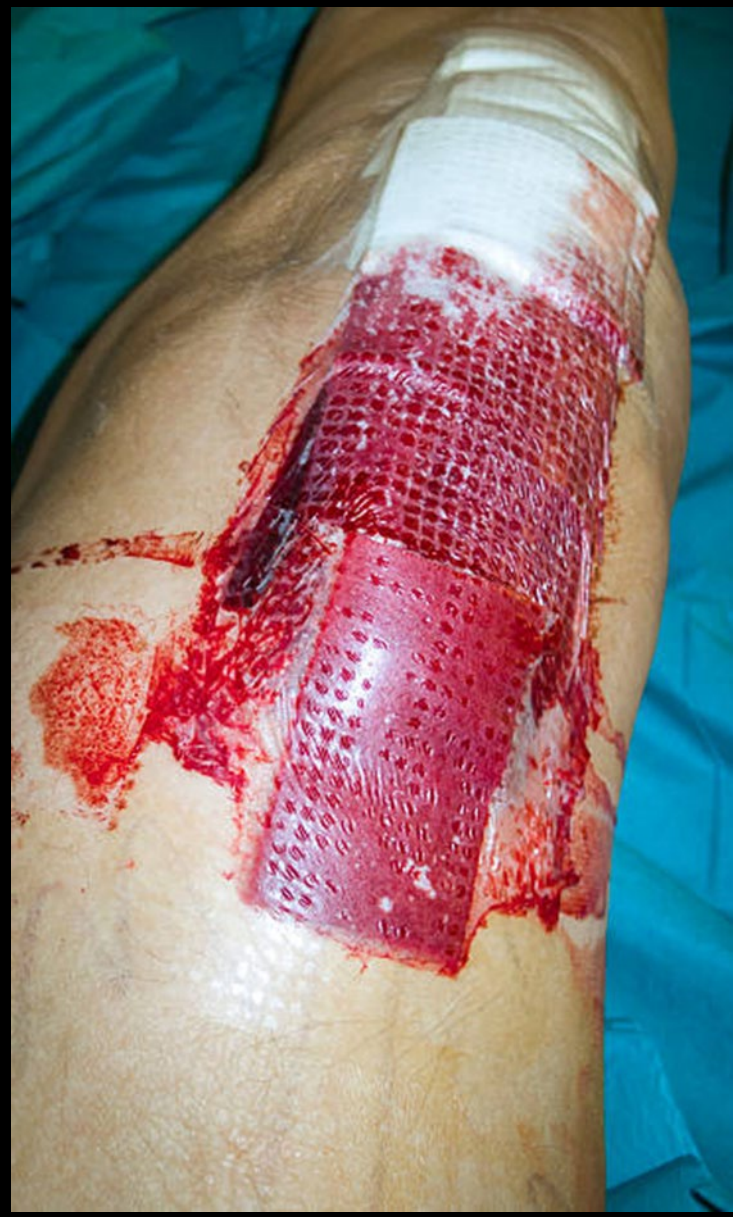


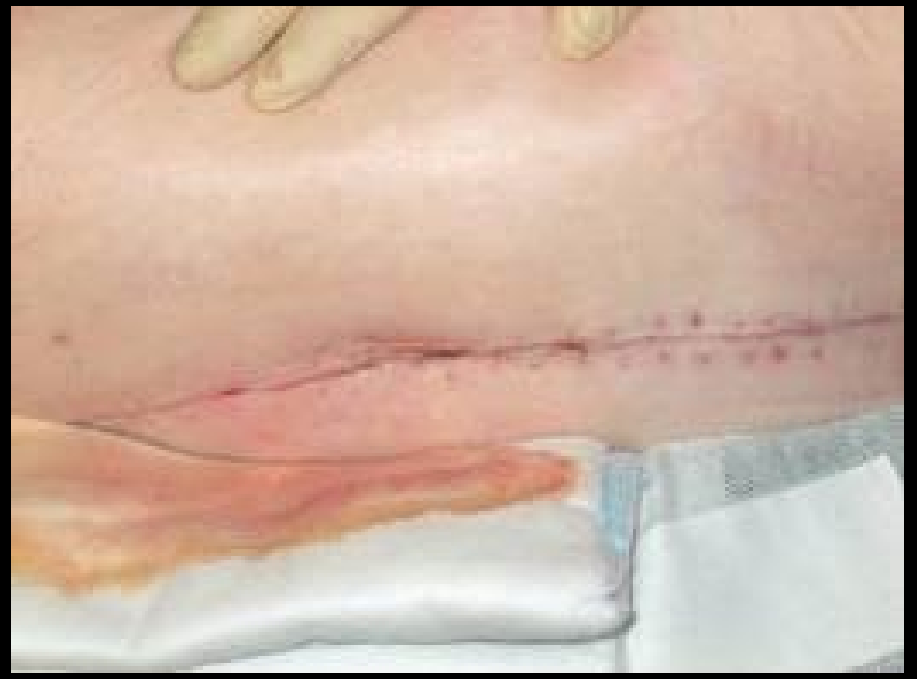


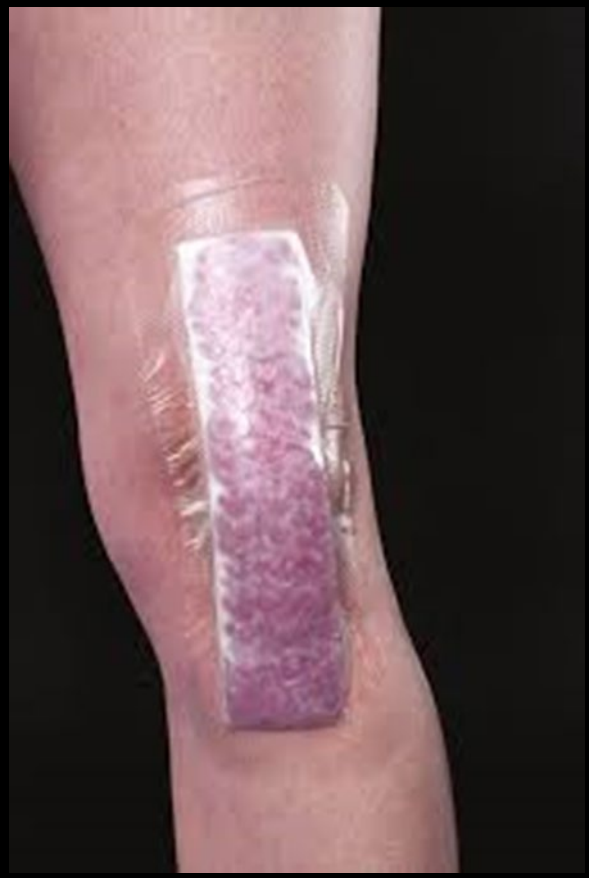




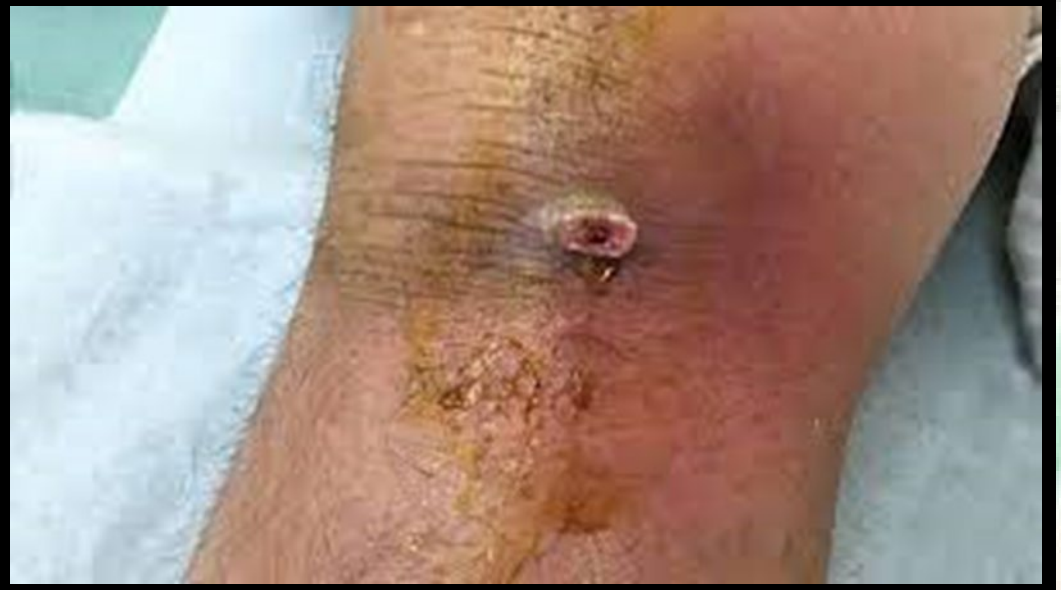



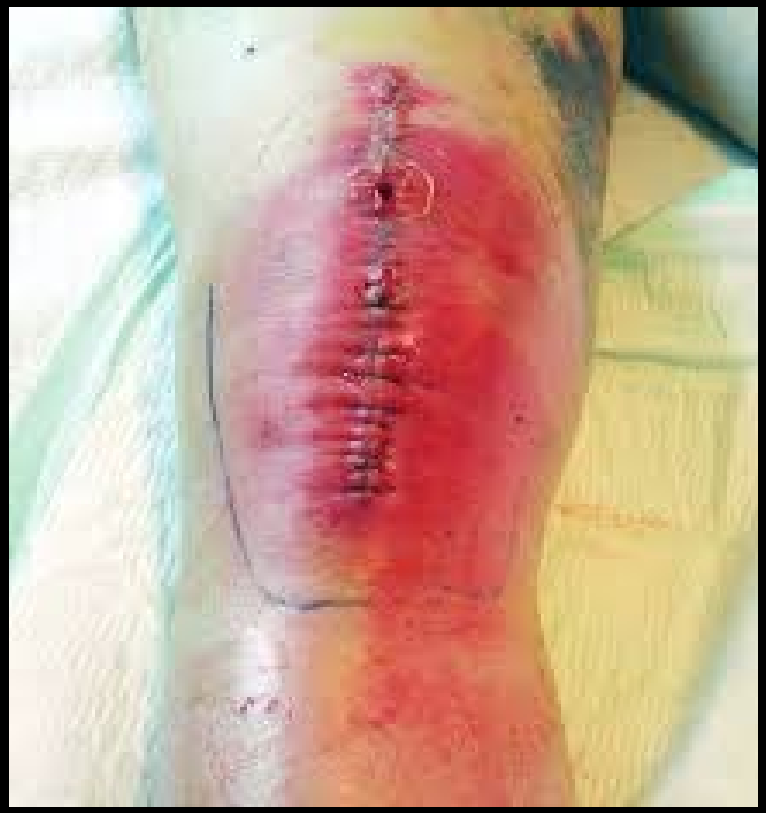












CONCERNING FEATURES

- Large amounts of drainage after 5 days
  - Greater than 2 by 2 cm area
- Expression of fluid through a sinus/opening
- Serosanguinous drainage vs serous fluid

POST-OPERATIVE MANAGEMENT

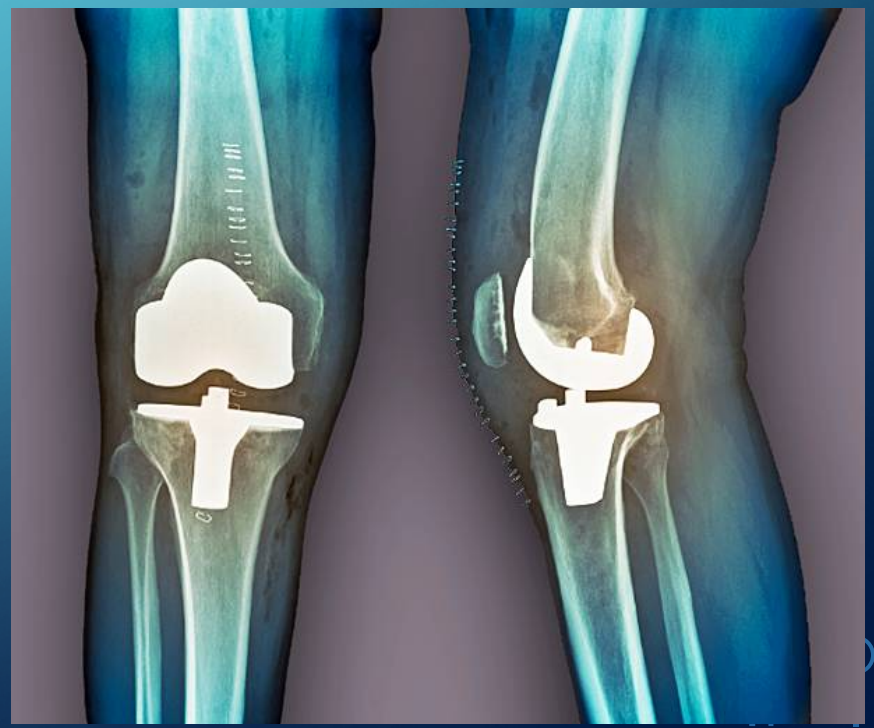
- Pain control
  - Multimodal
  - OTC analgesics/ NSAIDs
  - Occasional use of lyrica/gabapentin
  - Icing
  - Longer use of walking aids
  - Avoid refills of narcotic medications

SUMMARY

- TKR – effective operation for most people
- NOT a perfect operation
- 15% dissatisfaction
- Exhaust all non-surgical treatments
- Standing X-rays needed prior to referral
  - Do NOT need MRI scan

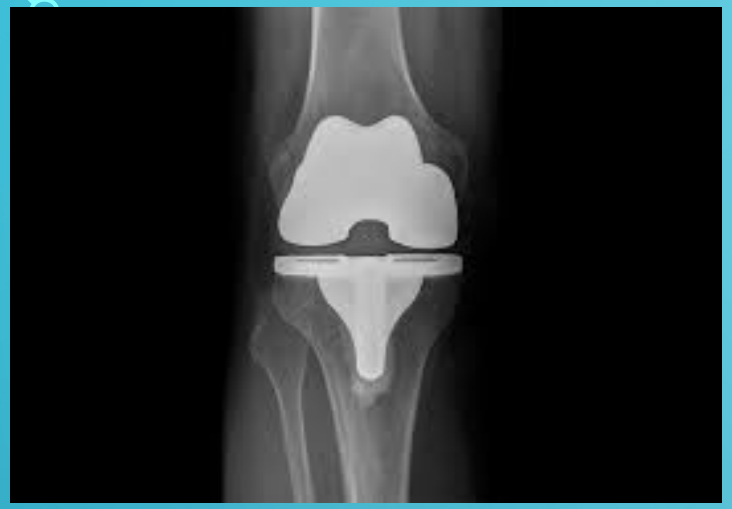
SUMMARY

- Medical optimization important prior to surgery
  - Glycemic control
  - Weight loss
  - Smoking cessation
- Post-op pain normal
  - Long recovery with this surgery
  - Multimodal pain management



SUMMARY

- Mainly use ASA for DVT prophylaxis
  - 14 days treatment
  - Other therapies for higher risk patients
- Watch out for wound infections
  - Prolonged drainage
  - Immediate referral to surgeon
  - Do NOT start antibiotics



Thank-you!