Renal colic due to kidney stones is often cited as one of the worst imaginable pains. It is caused by the ureters’ peristatic mechanisms trying to expel an obstructing kidney stone. Patients typically present with ‘loin to groin pain’.

Urinalysis typically shows evidence of haematuria.

Risk factors include diets high in animal protein & refined sugars.

Differential should include AAA & pyelonephritis.

### Stone type | Radio- opaque | Cause
--- | --- | ---
Calcium (80%) | Yes | Western highly refined diets
Struvite (10-15%) | Yes | Usually related to a UTI
Uric acid (5-10%) | No | Gout, diets with high animal protein/ purine intake

Cystine stones count for <2% of all stones and usually have a genetic cause.

#### Management in ED
- Analgesia- PR diclofenac is particularly useful
- Send U&Es to rule out post renal AKI
- FAST scan for those >50 years old
- Urinalysis
- In hours you may be able to get renal tract imaging either CT KUB or Renal tract USS

If pain is controlled patient can be allowed home to come back for O/P input (Fax a urology clinic referral)

Unless the patient has a radiologically proven stone or a history of renal stones with haematuria on this presentation they are unlikely to be admitted directly to Urology and should go to surgical receiving.