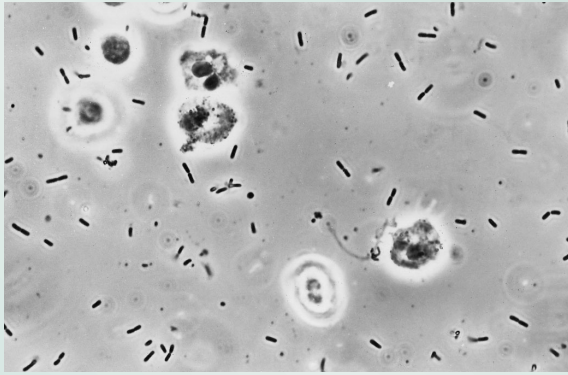


## Urinary tract infection at a glance



**Fig. A** White blood cells and bacteria in urine from a patient with bacterial cystitis. Reproduced from Becker GJ, Whitworth JA, Kincaid-Smith P. *Clinical Nephrology in Medical Practice*, Oxford: Blackwell Scientific Publications, 1992 with the permission of the authors.

### Epidemiology

- Very common worldwide
- Women > men
- Risk factors
  - New sexual partner for women
  - Prostate disease
  - Pregnancy
  - Stones
  - Diabetes mellitus
  - Anatomical abnormalities

### Upper UTI

- Deep renal tissue infection
- Can cause permanent damage
- Can cause severe illness

### Urine

- Cloudy
- Offensive smelling
- Blood
- Protein
- Cells
- Bacteria



### Common organisms

- *E. coli*
- *Proteus species*
- *Klebsiella species*
- *Staph. saprophyticus*

### Lower UTI

- Superficial mucosal infection
- No permanent damage
- Causes discomfort but not severe illness in young patients

