

Medicines causing discolouration of urine and faeces

Some medicines, including complementary medicines and vitamins, can cause discolouration of urine, faeces or bodily secretions. To avoid unnecessary concern for patients prescribed these medicines, pharmacists should advise them of this possibility.

Some foods, such as blackberries and rhubarb, and dyes used in confectionery or diagnostic testing may also cause discolouration. Changes in the colour of urine and faeces may also be a result of underlying medical conditions. Changes that are not diet or drug related, particularly if they are associated with symptoms such as urinary urgency, dysuria or abdominal colic or have persisted for several days, should be reported to a medical practitioner.^{1,2}

Variations in urine colour

Urine appearance and colour are studied during routine urinalysis. The range of colours for normal urine extends from pale yellow to dark amber, depending on concentration. The yellow colouration is caused by the pigment urochrome, a product of bilirubin metabolism.

- Dark yellow or orange colouration may be a result of low fluid intake, dehydration or excessive carotene intake.
- Dark red urine may indicate bleeding from the kidney, while bleeding from the lower urinary tract generally causes bright red urine.
- Dark-coloured urine may be a sign of cholestasis or acute viral hepatitis.
- Cloudy, murky or turbid urine may be caused by the presence of necrotic white blood cells, red blood cells or bacteria (e.g. in a urinary tract infection) or the ingestion of large amounts of fat, urates or phosphates.
- Green, odorous urine may indicate *Pseudomonas* infection.

Drugs that produce abnormal urine colours can affect the accuracy of urinalysis reagent strips.

Variations in faeces colour

The normal brown colour of faeces is due to the presence of bile salts; diseases affecting the pancreas, gall bladder or liver can produce light-coloured faeces.

- Black or 'tarry' faeces may be a result of ingested iron supplements or bleeding from an ulcer in the oesophagus or stomach (the blood remains in the intestines sufficiently long to be broken down by digestive enzymes).

- Pink, red or maroon faeces are due to the presence of undigested blood, either from low down in the digestive tract or from a more profusely bleeding site in the upper digestive tract.
- Silver, white, grey or yellow faeces may be associated with cholestasis or acute viral hepatitis.
- Yellowing of faeces may occur in giardiasis.
- Greenish faeces with an altered consistency in infants digesting solid food for the first time may be due to the presence of cells discarded during the development of the digestive tract.

Tables D.7 and D.8 list some medicines that can cause discolouration of urine and faeces. The list is not exhaustive. This detail is also provided in 'Clinical monographs', Section B.

Table D.7 Medicines that can cause discolouration of urine¹⁻⁴

Medicine	Colour of urine
Amitriptyline	Blue-green
Bismuth	Red-brown
Cascara	Red (in alkaline urine), yellow-brown (in acid urine)
Chloroquine	Rust yellow, brown
Clofazimine	Discolouration ^a
Dantrolene	Orange, red
Daunorubicin	Red
Deferiprone	Red-brown
Desferrioxamine	Red
Doxorubicin	Red
Entacapone	Brownish orange
Epirubicin	Red
Ferrous salts	Black
Fluorescein (IV)	Yellow, orange
Flutamide	Amber, yellow-green
Indomethacin	Green
Iron dextran	Black on standing
Levodopa	Red on voiding, darkens on standing ^b
Loratadine	Discolouration ^a
Mesalazine	Red ^b
Methylidopa	Darkens on standing ^b
Methylene blue	Blue-green
Metronidazole	Dark brown
Mitozantrone	Blue-green
Nitrates	Brown-black