

Glycogen storage diseases, which are inherited disorders of glycogen metabolism can lead to Fanconi syndrome. More specifically, GSD type XI, or Fanconi-Bickel syndrome, leads to glycogen accumulation and a characteristic proximal tubule dysfunction.

Tyrosinemia

[Tire](#)

In tyrosinemia, patients cannot properly break down the amino acid tyrosine. This can lead to hepatic failure along with renal failure and tubular dysfunction, leading to Fanconi syndrome in patients.

Acquired and Medication Causes

Tenofovir

[Tin-of-ears](#)

Tenofovir is a NRTI used to treat HIV. This drug can lead to renal failure and can result in tubular dysfunction of the kidneys. Thus, patients taking tenofovir can develop Fanconi syndrome.

Heavy Metals

[Heavy Metal-weights](#)

Exposure to and intoxication from heavy metals like lead, iron, cadmium, copper and mercury can lead to renal dysfunction, causing Fanconi syndrome to present in those exposed.

Expired Tetracyclines

[Broken Tetris-cycle](#)

When tetracyclines expire, tetracycline changes to form epitetracycline and anhydrotetracycline. These two compounds damage the proximal tubule, causing Fanconi syndrome.

Cisplatin

[C-SPAN reporter](#)

Cisplatin is a chemotherapy agent used in various cancers. This drug is nephrotoxic, and its use, especially in those with existing kidney dysfunction, can lead to proximal tubule insult and Fanconi syndrome.

Gentamycin (Aminoglycosides)

[Magenta-gentleman-mouse](#)

Exposure to high dose or expired aminoglycoside antibiotics can lead to proximal renal tubule dysfunction, leading to Fanconi anemia.

Valproate Sodium

[Vault-pro-rat with Salt-shaker](#)

Patients taking valproate or valproic acid are susceptible to renal injury, which can lead to Fanconi anemia. It has been noted, however, that these cases resolved after stopping valproate administration.

Multiple Myeloma

[M&M's](#)

Due to abnormal deposits of light and/or heavy chain in the proximal tubules of the kidney, patients with multiple myeloma and MGUS (monoclonal gammopathy of undetermined significance) can develop Fanconi syndrome.