**Folate digestion and absorption**

In foods, folate naturally occurs as polyglutamate. (Folate occurs as monoglutamate in fortified foods and supplements.)

In the intestine, digestion breaks glutamates off... and adds a methyl group. Folate is absorbed and delivered to cells.

In the cells, folate is trapped in its inactive form.

To activate folate, vitamin $B_{12}$ removes and keeps the methyl group, which activates vitamin $B_{12}$.

Both the folate coenzyme and the vitamin $B_{12}$ coenzyme are now active and available for DNA synthesis.