

5. Heme is further broken down into biliverdin by the enzyme heme oxygenase and then converted to unconjugated (indirect) bilirubin by biliverdin reductase. In the liver, the enzyme UDP-glucuronosyltransferase (UGT) conjugates bilirubin with glucuronic acid, making it water-soluble (conjugated bilirubin). Conjugated bilirubin is excreted into bile and transported to the intestine, where gut bacteria convert it into urobilinogen.