Although all fractions of petroleum find uses, the greatest demand is for gasoline. One barrel of crude petroleum contains 30–40% gasoline. However, to meet transportation demands we need to generate over 50% of gasoline per barrel. To close this gap and meet this demand, some of the other petroleum fractions must be converted to gasoline. This may be done by cracking — breaking down large molecules of heavy heating oil and heavy residuals; reforming — changing molecular structures of low quality gasoline molecules; and isomerization — rearranging the atoms in a molecule so that the product has the same chemical formula but has a different structure.

Did you know?
On January 1, 2017, there were 141 operable refineries in the United States with total crude distillation capacity of about 18.62 million barrels per calendar day (bpcd) and 19.80 million barrels per stream day (bpsd). The U.S. is now a net exporter of petroleum products — able to meet U.S. demand and help satisfy needs around the world.