The terms phenyl and phenol, along with benzene and benzyl, can confuse beginning organic chemistry students. Figure 1 shows what the four terms mean.

![Molecules and Groups Diagram](image)

**Figure 1**: The top two structures in Figure 1 are **molecules**. The -ene suffix of **benzene** might indicate that it is similar to an alkene. The -ol suffix of **phenol** indicates that it has an -OH group.

The lower two structures in Figure 1 show **groups**. The line extending off without anything connected is the line that shows this is a group, which should be attached to something. For example, one might have phenyl chloride (C₆H₅Cl, also called chlorobenzene) or one might have benzyl chloride (C₆H₅CH₂Cl). (The structures of these two compounds are shown below in Figure 2.) The **phenyl** group is based simply on benzene, with one H removed. The **benzyl** group is based on methylbenzene (toluene), with one H removed from the methyl group.

![Molecules and Groups Diagram](image)

Figure 2 shows the **molecules** benzyl chloride and phenyl chloride; these are based on the groups discussed above.

If you have the misfortune to come across the word benzol, be forewarned that this is an old German word for benzene. Similarly, toluol is a German word for toluene. Benzin is a German word for gasoline; it is related to the uncommon term benzine, used for some types of gasoline.
Contributors

>Robert Bruner (http://bbruner.org)