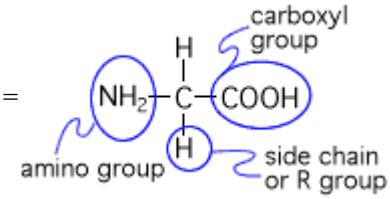
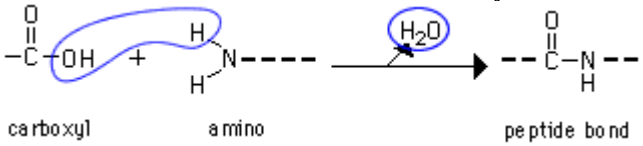
Amino Acids & Peptides

AMINO ACIDS (subunits of peptides) = 

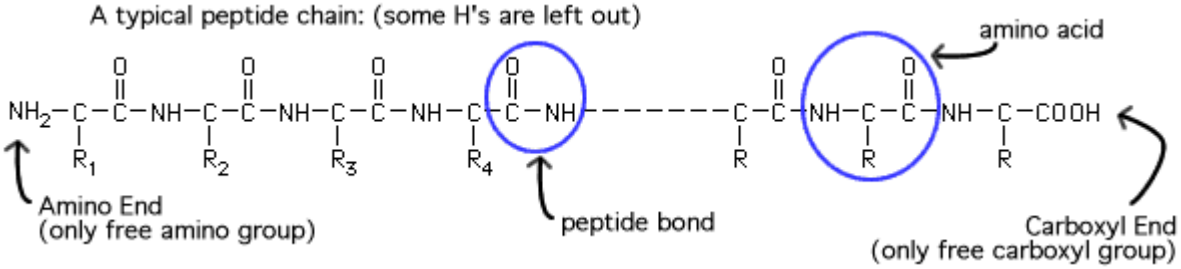
SOME AMINO ACID EXAMPLES

R Group	***Name of Amino Acid***	***Interesting property of Amino Acid***
-H	Glycine	Simplest amino acid
$-CH_2-SH$	Cysteine	2 cysteines can form cross-links between peptide chains
$-CH_2-COOH$ $-CH_2-CH_2-COOH$	Aspartic acid Glutamic acid	Have a negative charge at intracellular pH
$-CH_2-CH_2-CH_2-CH_2-NH_2$	Lysine	Has a positive charge at intracellular pH
$-CH(CH_3)_2$	Valine	Not polar; avoids H_2O
For the names and formulas of all 20 common amino acids, see text and/or other handout.		

PEPTIDE BOND = bond between a carboxyl and an amino group

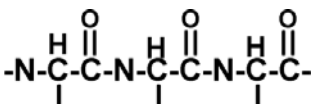


PEPTIDES = chains of amino acids connected by peptide bonds



Note that:

1) The chain has a regular repeating structure (backbone without R-groups)



2) All the R groups stick out