The Fatty Acids

Saturated:

C_{16}	$CH_3 – (CH_2)_{14} – CO_2^-$	Palmitic Acid (Palmitate)
C_{18}	$CH_3 – (CH_2)_{16} – CO_2^-$	Stearic Acid (Stearate)
C_{20}	$CH_3 – (CH_2)_{18} – CO_2^-$	Arachidic Acid (Arachidate)

Unsaturated:

Note: All double bonds are in the cis conformation

C_{16} $CH_3 – (CH_2)_5 – CH = CH – (CH_2)_7 – CO_2^-$
Palmitolecic Acid (Palmitoleate)

C_{18} $CH_3 – (CH_2)_7 – CH = CH – (CH_2)_7 – CO_2^-$
Oleic Acid (Oleate)

C_{18} $CH_3 – (CH_2)_4 – CH = CH – CH_2 – CH = CH – (CH_2)_7 – CO_2^-$
Linoleic Acid (Linoleate)

C_{18} $CH_3 – CH_2 – CH = CH – CH_2 – CH = CH – CH_2 – CH = CH – (CH_2)_7 – CO_2^-$
Linolenic Acid (Linolenate)

None of these exist as free Fatty Acids in tissues. They are found as esters of glycerol.

Mamalian systems can not place a double bond between the terminal carbon and the 6^{th} carbon removed from the methyl carbon: Linoleate is a “Nutritionally Essential” Fatty Acid as the double bond is between C6 and C7. Same goes with Linolenate.