

### Typical Fatty–Acid Compositions of Some Common Fats

(adapted from Gunstone, F. *Fatty Acid and Lipid Chemistry*; Blackie: London, 1996, and other sources)

Specific compositions are variable, depending on diet and other factors. The symbol for an acid includes the total number of carbons and double bonds (e.g., 18:2), followed by the location of the start of the first double bond counting from the methyl end of the chain. (e.g., n-6, sometimes given as  $\square$ 6). The double bonds in the more common unsaturated fatty acids have a cis configuration, and are separated by a  $-\text{CH}_2-$  group.

#### Animal origin

##### Beef fat

37% saturated		
wt. %	name	symbol
27	palmitic	16:0
7	stearic	18:0
3	myristic	14:0

61% unsaturated		
wt. %	name	symbol
48	oleic	18:1 n-9
11	palmitoleic	16:1 n-7
2	linoleic	18:2 n-6

2% other

##### Butter

61% saturated		
wt. %	name	symbol
26	palmitic	16:0
12	myristic	14:0
11	stearic	18:0
4	lauric	12:0
3	butyric	4:0
3	capric	10:0
2	caproic	6:0

33% unsaturated		
wt. %	name	symbol
28	oleic	18:1 n-9
3	palmitoleic	16:1 n-7
2	linoleic	18:2 n-6

6% other (including 5% trans fatty acids)

##### Chicken/ turkey fat

29% saturated		
wt. %	name	symbol
22	palmitic	16:0
6	stearic	18:0
1	myristic	14:0

65% unsaturated		
wt. %	name	symbol
37	oleic	18:1 n-9
20	linoleic	18:2 n-6
6	palmitoleic	16:1 n-7
1	gadoleic	20:1 n-9
1	linolenic	18:3 n-3

6% other

##### Lard (hog fat)

40% saturated		
wt. %	name	symbol
27	palmitic	16:0
11	stearic	18:0
2	myristic	14:0

59% unsaturated		
wt. %	name	symbol
44	oleic	18:1 n-9
11	linoleic	18:2 n-6
4	palmitoleic	16:1 n-7

1% other

##### Salmon (skinned filet)

18% saturated		
wt. %	name	symbol
3	myristic	14:0
11	palmitic	16:0
4	stearic	18:0

80% unsaturated		
wt. %	name	symbol
5	palmitoleic	16:1 n-7
25	oleic	18:1 n-9
5	linoleic	18:2 n-6
5	linolenic	18:3 n-3
2	stearidonic	18:4 n-3
5	arachidonic	20:4 n-6
2	eicosatetraenoic	20:4 n-3
5	eicosapentaenoic	20:5 n-3
2	docosatetraenoic	22:4 n-6
5	docosapentaenoic	22:5 n-3
2	docosapentaenoic	22:5 n-6
17	docosahexaenoic	22:6 n-6

2% other

##### Brook trout (skinned filet)

26% saturated		
wt. %	name	symbol
4	myristic	14:0
18	palmitic	16:0
4	stearic	18:0

72% unsaturated		
wt. %	name	symbol
11	palmitoleic	16:1 n-7
21	oleic	18:1 n-9
6	linoleic	18:2 n-6
6	linolenic	18:3 n-3
3	stearidonic	18:4 n-3
4	arachidonic	20:4 n-6
1	eicosatetraenoic	20:4 n-3
7	eicosapentaenoic	20:5 n-3
2	docosapentaenoic	22:5 n-3
9	docosahexaenoic	22:6 n-6

4% other

**Plant origin****Canola oil  
(rapeseed)****6% saturated**  
4 palmitic 16:0  
2 stearic 18:0**92% unsaturated**  
56 oleic 18:1 n-9  
26 linoleic 18:2 n-6  
10 linolenic 18:3 n-3

2% other

**Coconut oil****90% saturated**  
48 lauric 12:0  
16 myristic 14:0  
9 palmitic 16:0  
8 caprylic 8:0  
7 capric 10:0  
2 stearic 18:0**9% unsaturated**  
7 oleic 18:1 n-9  
2 linoleic 18:2 n-6

1% other

**Corn oil****16% saturated**  
13 palmitic 16:0  
3 stearic 18:0**84% unsaturated**  
52 linoleic 18:2 n-6  
31 oleic 18:1 n-9  
1 linolenic 18:3 n-3**Olive oil****12% saturated**  
10 palmitic 16:0  
2 stearic 18:0**86% unsaturated**  
78 oleic 18:1 n-9  
7 linoleic 18:2 n-6  
1 linolenic 18:3 n-3

2% other

**Palm oil****48% saturated**  
44 palmitic 16:0  
4 stearic 18:0**50% unsaturated**  
40 oleic 18:1 n-9  
10 linoleic 18:2 n-6

2% other

**Peanut oil****16% saturated**  
13 palmitic 16:0  
3 stearic 18:0**79% unsaturated**  
41 linoleic 18:2 n-6  
38 oleic 18:1 n-9

5% other

**Safflower oil****10% saturated**  
7 palmitic 16:0  
3 stearic 18:0**89% unsaturated**  
75 linoleic 18:2 n-6  
14 oleic 18:1 n-9

1% other

**Soybean oil  
(unhydrogenated)****14% saturated**  
10 palmitic 16:0  
4 stearic 18:0**81% unsaturated**  
51 linoleic 18:2 n-6  
23 oleic 18:1 n-9  
7 linolenic 18:3 n-3

5% other

**Soybean oil  
(partially  
hydrogenated)****15% saturated**  
10 palmitic 16:0  
5 stearic 18:0**81% unsaturated (including 14% trans)**  
35 linoleic 18:2 n-6  
43 oleic 18:1 n-9  
3 linolenic 18:3 n-3

4% other