MEASURING OILS AND FATS ON THE KETOGENIC DIET





Written by
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'Ask our Dietitian'

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Question?

Olive oil is now being listed on some labels as containing 91 -92g fat per 100g rather than 100g fat.

Why is this and what does this mean for patients and families when weighing out their oils?



Sue says...

It sounds like the nutrition labels on oils are catching up with chemical accuracy ... Vegetable oils are pure 'fat'. The oils are always sold by volume (ie millilitres or mls) not weight (grams) therefore their nutrition label has to reflect the way they are sold.

However ml for ml, oils are lighter than water and this relates to their 'density' and this also alters depending on its temperature i.e. 1g of oil will occupy a different volume (mls) depending on how warm it is. The range is from 0.91 to 0.93 g/ml between the temperatures of 15 °C and 25 °C. Comparing to water, whose density is 1.00 g/ml, vegetable oil is less dense.

Ref: ***www.doingoilmachine.com/FAQ/212.html***

Put simply, if you are weighing your oil on scales – 1g does mean 1g. It's just that if you are measuring by spoon or measuring jug, 1ml oil does not weigh 1g!

The most important thing with the ketogenic diet is to be consistent with your methods. If the oil is always measured in the same way, be it mls or grams consistently, the keto recipe meal will remain constant and deliver the same keto 'dose'.

For those following a Classical Ketogenic diet, you will already be weighing your keto meal ingredients, including your solid fats (eg. butter, lard) on gram scales, therefore it would seem simpler to stick to weighing your liquid fat sources (eg. Olive oil, MCT oi, double cream**, Calogen, Liquigen, Betaquik) on the scales too.*

**solid fats become liquids when heated, but this does not alter their fat content.*

***double cream becomes a solid when whipped (air is added) but this does not change its fat content.*

For those following a Modified Ketogenic Diet, where the advice on fat intake may be to 'add fat to appetite' rather than specifying an amount in grams, then weighing fats at every meal may not be necessary (please check with your dietitian). However, it is still important to know how much fat you are adding, so by looking at your 5g/10g fat portions on gram scales at the outset, you can then switch them to handy measures (eg. kitchen spoons, measuring spoons/ cups etc) without weighing each time. This approach can also help you to learn to gauge fat portions by eye too. However, do recheck by weighing intermittently, as the eye's accuracy can wander off the mark very easily!

Olive oil - Density table in function of temperature from

www.aceitedelasvaldesas.com/en/faq/propiedades-composicion-aceite-oliva/densidad-del-aceite-de-oliva/



Density of the olive oil

Temperature (ºC)	Density (kg/ litro)	Temperature (ºC)	Density (kg/litro)
6	0,9230	18	0,9150
7	0,9224	19	0,9144
8	0,9217	20	0,9137
9	0,9210	21	0,9130
10	0,9204	22	0,9124
11	0,9197	23	0,9117
12	0,9190	24	0,9110
13	0,9184	25	0,9104
14	0,9177	26	0,9097
15	0,9170	27	0,9090
16	0,9164	28	0,9084
17	0,9157	29	0,9077

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MFCH006/V1.1