مبادلة للرعاية الصحية
Mubadala Health
Jumeirah - Dubai
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Your guide to Carbohydrate Counting

A joint effort by the Clinical Nutrition Team

WHAT IS CARBOHYDRATES COUNTING?

Carbohydrate counting is a practical technique that helps you calculate the carbohydrate content in your meals. Learning about carbohydrate containing foods is very important because they have the most immediate impact on your blood glucose levels.

This booklet will help you understand the carbohydrate content in each food group, and therefore, could be a useful tool for you in controlling your blood glucose levels.

BENEFITS OF CARBOHYDRATE COUNTING

- Helps you count the amount of carbs in your meal
- Gives you more flexibility with your food choices
- Helps you Keep your blood sugar levels in control
- Helps you match your insulin dosage with the carbs in your food

GLYCAEMIC INDEX

The GI is a tool that ranks carbohydrate containing foods according to their effect on blood glucose levels.

High GI foods: are quickly absorbed by your body and raise your blood sugar levels rapidly.

Low GI foods: are slowly absorbed by your body and raise your blood sugar levels gradually which is considered healthier.

How to obtain a low-GI diet

- Choose multi-grain, whole wheat, rye, or pumpernickel breads.
- Choose long-grain rice (e.g. Basmati), pasta (cooked al dente), whole wheat bulghur, and barley.
- Enjoy fresh vegetables & fruits.
- Avoid High GI fruits like watermelon, mangos, dates, banana, and grapes.
- Enjoy Low GI fruits like oranges, strawberries, raspberries, blueberries, apples, kiwi, and cherries.

MAIN FOOD GROUP COMPONENTS ARE:

- Carbohydrates
- Proteins
- Fats

BREAD CEREALS & GRAINS

BREAD & PASTRIES

one serving of the following is 15g carb

1	Slice bread
1/2	Small pita (Arabic) bread (30g)
1/6	Large pita (Arabic) bread (30g)
1/2	Hotdog bun
1/2	Hamburger bun
1	Rgag
1/3	Paratha
1	Pancake (4in. across)
1	Chapatti bread (6in. across)
2	Rusks*
2	Breadsticks (20g)*
1/3	Tannour bread (30g)
1	Corn/wheat flour tortilla (6in across)
1/4	Naan bread (2 x 8in.^{2})
1 ½	Digestive biscuit*
1/2	Small mankoushah (40g) (dough topped with olive oil & thyme or cheese)
1	Vegetable samosa**
2	Small cheese/spinach/meat pastry**
1/2	Medium doughnut**
1/2	Medium croissant**
1	Cake, unfrosted (2in.^{2})*
1	Cake, frosted (1in.^{2})*
1	Cupcake* (35g)
1	Muffin (45g)*

** The carbohydrate content in this food item may vary depending on the manufacturer. Please verify the carbohydrate content displayed on the nutrition (food) label before you consume it.*

*** The carbohydrate content in this food item might vary depending on the recipe.*

BREAKFAST CEREALS

one serving of the following is 15g carb

- 1/2 Cup cooked oats*
- 1/2 Cup All Bran cereal*
- 3/4 Cup corn flakes*

GRAINS

one serving of the following is 15g carb

- 1/2 Cup cooked bulgur/cracked wheat (Freekeh)
- 1/3 Cup cooked pasta/noodles
- 1/3 Cup cooked white/brown rice
- 1/3 Cup cooked couscous
- 3 Tbsp*** dry oats/bulgur

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**** Tbsp = tablespoon = 15ml*

VEGETABLES

STARCHY VEGETABLES & LEGUMES

one serving of the following is 15g carb

- 1/2 Cup beans (baked/fresh/boiled/drained)
- 1/2 Cup green fava beans (fresh/boiled/drained)
- 1/2 Cup chick peas (fresh/boiled/drained)
- 1/2 Cup green peas (fresh/boiled/drained)
- 1/2 Cup lentils
- 1/2 Cup corn or 1/2 corn on the cob
- 1 Small boiled/baked potato (90g)
- 1/2 Cup cooked sweet potato/yam
- 1/2 Cup mashed potato
- 3 Tbsp*** hummus
- 3 Tbsp*** mashed fava beans
- 3 Chestnuts
- 1 Cup cooked squash
- 1 Cup beetroot

NONSTARCHY VEGETABLES

one serving of the following is 5g carb

One serving of this group is considered free. Three servings or more of this group will contain ~15g carbohydrates.

1 serving from this group is:

- 1 Cup salad or raw vegetables (Example: tomato, zucchini, mushroom)
- 1/2 Cup cooked vegetables
- 1 Small onion
- 1 Medium lemon

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FRUITS

FRUITS

one serving of the following is 15g carb

1	Small apple
1	Medium pear
1	Medium orange
1/2	Medium grapefruit
1/4	Pomelo (160g)
1	Medium guava (85g)
1	Medium peach
1/2	Medium pomegranate
2	Medium cactus fruit
1	Medium kiwi
2	Small plums
15	Medium grapes
7	Loquats
4	Medium apricots
1/2	Large persimmon (100g)
2	Small tangerines
1	Small banana
15	Large cherries
1/2	Small mango
1	Cup cantaloupe/honeydew
1 ¼	Cup watermelon
1 ¼	Cup strawberries
2	Medium figs
1	Medium quince
1	Cup berries
3	Fresh/dry dates
3/4	Cup pineapple
1/2	Cup fruit salad
2	Tbsp*** raisins
1/4	Cup tamarind pulp
4	Whole dry apricot
2	Medium dry figs
3	Medium prunes

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**** Tbsp = tablespoon = 15ml*

MILK & ALTERNATIVES

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one serving of the following is 15g carb

1	Cup skimmed/low/full fat milk
1	Cup plain yoghurt drink*
2/3	Cup yoghurt
1/2	Cup chocolate milk*
1/2	Cup or 8 Tbsp*** evaporated canned milk
2	Tbsp*** sweetened condensed milk
3	Tbsp*** milk powder
1	Cup soy milk
1	Cup camel milk
1	Cup goat milk

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**** Tbsp = tablespoon = 15ml*

MEAT & ALTERNATIVES

MEAT & ALTERNATIVES

Eat 120g -180g daily from this group. Enjoy fish more often. Try to eat one or more meatless meals weekly. Food items in this group contain 0g of carbohydrates.

- Fish/seafood
- Meat (veal/lamb/goat/camel/rabbit)
- Organ meats (heart/liver/spleen/kidney/brain)
- Chicken/Turkey/Pigeon/Other Birds
- Cheese/Labneh
- Eggs

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FATS & OILS

FATS & OILS

Use fats and oils sparingly. Choose more often monounsaturated and polyunsaturated fats such as canola and olive oil. Try to limit your intake from this group to 3-5 servings per day. Each serving of this group has 0g of carbohydrates.

1 serving from this group is:

1	tsp oil (Canola, olive, sunflower, corn, sesame, and all other oils)
1	tsp margarine
1	tsp butter
1	tsp ghee
1	tsp mayonnaise
1	Tbsp cream cheese
2	2 Tbsp avocado
8-10	Olives
30 g	Nuts
2	tsp peanut butter
1	Tbsp sesame seeds
2	Tbsp coconut, shredded

tsp = teaspoon = 5ml
Tbsp = tablespoon = 15ml

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JUICES, SWEETS & OTHER FOODS

DRINKS & JUICES

one serving of the following is 15g carb

1/3 - 1/2	Cup fresh fruit juice*
1 ½	Cup tomato/vegetable juic
120ml	Regular soft drink
130ml	Energy drink*
360ml	Non-alcoholic beer*
1	Tbsp*** Tang*
1/3	Cup Vimto*

TRADITIONAL FOODS

one serving of the following is 15g carb

1	Cup lentil soup**
1/4	Cup koshari (rice, pasta & lentils)**
1	Meat kibbeh**
3	Pieces falafel**
2	Pieces small sushi**
2 ½	Medium stuffed courgette**
10	Small stuffed vine leaves**
3	Medium stuffed cabbage**
1/3	Cup unsweetened balaleet**
2/3	Cup harees**
1/3	Cup thareed**
2	Small sweet dumpling (Lukaimat)**
4	Tbsp*** batheeth**
2 ½	Tbsp*** Khabisa**
4	Tbsp*** Sago**
3	Tbsp*** Aseeda (50g)**

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OTHER FOODS

one serving of the following is 15g carb

1	Tbsp*** sugar/honey/molasses/jam/syrup
2	Tbsp*** unsweetened jam*
1/2	Cup ice-cream or frozen yoghurt*
1/2	Cup custard*
1/2	Cup Jell-O*
1/3	Cup milk pudding*
3	Cups popcorn
30g	Chips/crisps*
6	Pieces chicken nuggets
10-15	Strips of french fried potatoes
1	Small date maamoul*
2	Small Baklava*
3	Tbsp*** unsweetened cocoa powder
1	Tbsp*** halawa tahina (rahash)
3	Tbsp*** ketchup*
3	Hard candies*
3	Tbsp*** wheat flour
2	Tbsp*** corn starch
3	Tbsp*** bread crumbs

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GUIDE FOR READING THE NUTRITION LABEL

When you are counting carbohydrates in packaged food consider the following points:

- Serving size
- Number of servings per container
- Grams of total carbohydrates per serving

Example:
Refer to the label on the right:

- One serving is 126g (one banana in this case):
- Contains 30g of Carbohydrates
- Disregard the amount of sugars listed

Insulin:Carb banana	Units of Insulin/
1:5	6 units
1:10	3 units
1:20	1.5 units

Note:
1. Food items that are labeled as "fat-free," "low-fat", "lite", or "reduced-fat" may actually have sugar/carbohydrate added to them to compensate for the fat and make them taste better. Therefore, you should always read the food label carefully.
2. Sugar free items are not necessarily carbohydrates free. Please examine accurately your food label to determine the carbohydrate content in the food product that you are consuming.

CARBOHYDRATES SERVINGS/MEAL GUIDE

How many carbohydrate servings can I have during my meals?

Most Men need: 4-5 carb servings at each meal

Most Women need: _ 3-4 carb servings at each meal

Only if hungry, Snack (optional): 1-2 carb servings

Breakfast: _____servings or _____ grams

Lunch: _____servings or _____ grams

Dinner:_____servings or _____ grams

At snacks: _____servings or _____ grams

Note: the needs for carbohydrates serving might differ from one person to the other. Please consult with your Dietitian for your personalized daily carbohydrate servings that you need to eat during your meals and snacks.

TOOLS USED TO ESTIMATE CARBS IN FOOD

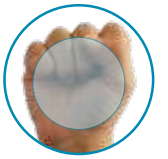
- Digital food scale
- Food labels
- Measuring cups
- Measuring spoons
- Smart phone apps
- Other online resources
- The hand guide from diabetes and healthy eating

THE HAND GUIDE

You can stay on track by using this quick guide to estimate your portion sizes when you cannot, or prefer not to, measure your food. Use the hand guide to estimate how much you consume:

Thumb tip = 1 serving or 1 tsp olive oil

Thumb = 1 serving or 30 g low fat cheese



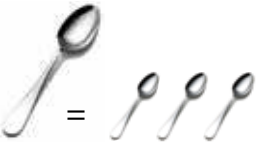
Fist = 3 servings or 9 Tbsp pasta or rice

Palm with the thickness of your little finger = 3 servings or 90 g cooked meat

Handful = 1 serving or 30 g nuts

MEASUREMENTS GUIDE

1 Tablespoon = 15g
1 Teaspoon = 5g
1 Tablespoon = 3 Teaspoons



Volume of 1 cup = 240ml

Dimension of a serving plate = 9inch