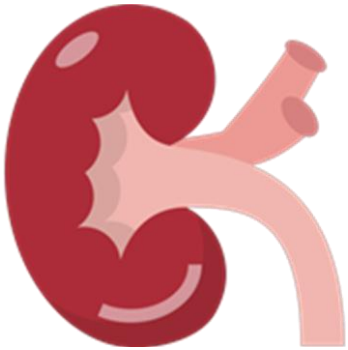
تجمع الرياض الصحي الثاني
Riyadh Second Health Cluster
شركة الصحة القابضة



# Renal Diet Plan

## (.....) Calories

## Renal Function in the Human Body

**The renal perform many vital functions, including:**

- **Purifying the body from impurities resulting from the digestion of food.**
- **Maintaining the balance of fluids and salts in the body.**
- **Producing hormones that help in producing red blood cells, promoting bone health, and regulating blood pressure.**

### Why should we follow a diet?

When the kidneys are unable to perform their functions, they do not filter impurities from the blood properly, such may negatively affect the body, leading to:

- Fluid retention (edema)in the body.
- High levels of urea in the blood.
- An imbalance of body salts: sodium, potassium, phosphorus and calcium.

## Sodium

A mineral found in most of the foods we eat, such as table salt, canned foods, sauces and fast food.

However, normal levels of sodium help balance body fluids.

### Why should we pay attention to the amount of sodium?

Reducing sodium intake helps in:

- Preventing the body from retaining more fluids.
- Reducing the feeling of thirst.
- Controlling blood pressure.

### Ways to Reduce Sodium in Food:

- Avoid adding salt when cooking.
- Use fresh meat instead of potted meat.
- Avoid processed and canned foods.
- Choose fresh fruits and vegetables or salt-free canned and frozen products.
- Use spices that do not contain "salt" (such as garlic instead of garlic salt).
- Limit total sodium content to 400 mg per meal and 150 mg per snack.
- Read the nutritional information label on canned products.

## Daily Intake of Sodium…….mg

## Some Foods and their Sodium Content

| Type of Food | Quantity | Sodium/serving (mg) |
|---|---|---|
| Apple | 1 | 0 |

| | | |
|---|---|---|
| Banana | 1 | 1 |
| Salt | A teaspoon (tsp) | 2300 |
| Frozen Vegetables | 1 Cup | 64 |
| Canned Vegetables | 1 Cup | 243 |
| Canned Tomato Sauce | 1 Cup | 1482 |
| Salted Butter | A teaspoon (tsp) | 116 |
| Milk | 1 Cup | 122 |

| | | |
|---|---|---|
| Ghee | 1 Tablespoon (Tbs) | 134 |
| Parmesan Cheese | ¼ Cup | 465 |
| Cheddar Cheese | 1 Cup | 701 |
| Orange Juice | 1 Cup | 2 |
| Diet Coke | 1 Can | 75 |
| Mustard | 1 Tablespoon (Tbs) | 129 |
| Ketchup | 1 Tablespoon (Tbs) | 156 |

| | | |
|---|---|---|
| Unsalted Peanuts | 1 Cup | 22 |
| Salted Peanuts | 1 Cup | 626 |
| Oatmeal | 1 Cup | 2 |
| Chicken Breast | 90 gm | 64 |
| Canned Tuna | 90 gm | 468 |
| Cooked Salmon | 90 gm | 55 |
| Sausage | 1 | 504 |

## Potassium

A mineral found in most of the foods we eat, such as fruits and vegetables. Normal levels of potassium help regular heartbeat.

### Why should we pay attention to the amount of potassium?

The inability of the kidneys to remove excess potassium leads to a buildup of potassium levels (Hyperkalemia) in the body, which may cause:

- Muscle weakness.
- Heart Rhythm Disorder (Arrhythmia).

### Ways to Reduce Potassium in Foods:

- Limit the intake of foods that are high in potassium.
- Limit intake of milk and dairy product.
- Choose fresh fruits and vegetables low in potassium.

- Avoid spices that contain potassium.
- Read the nutritional information label on canned products and avoid potassium chloride.
- Peel the vegetables, cut them into cubes, then immerse them in a large amount of water for at least 4 hours (you may put them in the refrigerator overnight), then remove the water, wash the vegetables with new water, then cook them.

## Daily Intake of Potassium……mg

### High Potassium Foods:

| Type of Food | Quantity | Potassium/serving (mg) |
|---|---|---|
| Baked Potato | ½ Cup | 256 |
| Fried Potato | ½ Cup | 209 |

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|---|---|---|
| Sweet Potato | ½ Cup | 210 |
| White Canned Beans | ½ Cup | 211 |
| Cooked Pumpkin | ½ Cup | 282 |
| Broccoli | ½ Cup | 158 |
| Spinach | ½ Cup | 159 |
| Canned Tomato | ½ Cup | 160 |
| Tomato | ½ Cup | 251-273 |
| Tomato Juice | ½ Cup | 269 |
| Carrot Juice | ½ Cup | 345 |
| Avocado | ½ Cup | 549 |
| Banana | 1 Small piece | 211-225 |

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|---|---|---|
| Raisins | 1/3 Cup | 363 |
| Cantaloupe | ½ Cup | 364 |
| Dried Peach | 5 Pieces | 797 |
| Dried Figs | 2 Pieces | 258-266 |
| Kiwi | 1 Piece | 252 |
| Guava | 1 Medium piece | 253 |
| Mango | 1 | 254 |
| Pomegranate | 1 Medium piece | 255 |
| Apricot | 1 Piece | 256 |
| Date | ½ Piece | 258 |

## Moderate Potassium Foods:

| Type of Food | Quantity | Potassium/ serving (mg) |
|---|---|---|
| Fresh Carrot | ½ Cup | 260 |
| Cooked Carrot | ½ Cup | 261 |
| Beetroot | ½ Cup | 259 |
| Fresh Okra | ½ Cup | 264 |
| Frozen Corn | ½ Cup | 265 |
| Zucchini | ½ Cup | 173 |
| Green leafy Vegetables | ½ Cup | 174 |
| Fresh Celery | ½ Cup | 175 |
| Frozen Cabbage | ½ Cup | 177 |

| | | |
|---|---|---|
| Green Turnip | ½ Cup | 146 |
| Fresh Cauliflower | ½ Cup | 152-177 |
| Fresh Orange | 1 Piece | 237 |
| Plum | 2 Pieces | 208 |
| Watermelon | 1 Cup | 186 |
| Cherry | 10 Pieces | 187 |
| Grapefruit | ½ Piece | 188 |
| Pear | 1 Piece | 189 |
| Pineapple Juice | 1 Medium piece | 190 |
| Peach | ½ Cup | 191 |
| Tangerine/Mandarin | 1 Piece | 192 |
| Strawberry | 1 Piece | 193 |

| | | |
|---|---|---|
| Lemon Juice | ½ Cup | 194 |

## Low Potassium Foods:

| Type of Food | Quantity | Potassium/ serving (mg) |
|---|---|---|
| Cucumber | ½ Cup | 84 |
| Fresh Onion | ½ Cup | 85 |
| Cooked Onion | ½ Cup | 86 |
| Radish | 4 Pieces | 87 |
| Green Beans | ½ Cup | 73-85 |
| Cooked Cauliflower | ½ Cup | 88 |
| Lettuce | ½ Cup | 89 |

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|---|---|---|
| Jew's Mallow (Molokhia Leaves) | ½ Cup | 45 |
| Bell Pepper | ½ Cup | 113 |
| Canned Peas | ½ Cup | 114 |
| Fresh Peas | ½ Cup | 115 |
| Fresh or Cooked Cabbage | ½ Cup | 72-86 |
| Peeled Apple | ½ Cup | 62 |
| Lemon | 1 Piece | 63 |
| Fresh Pineapple | ½ Cup | 64 |
| Canned Pineapple | 2 Slices | 65 |
| Canned Pear | ½ Cup | 66 |

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|---|---|---|
| Grapes | 10 Pieces | 93-105 |
| All types of Berries | ½ Cup | 65-94 |
| Blue Berry Juice | ½ Cup | 31 |

## Phosphorus

An essential mineral in the formation of bones and body organs and helps in muscle movement.

Why should we pay attention to the amount of phosphorus?

High levels of Phosphorus lead to:

- Pulling calcium from the bones, making them weak, thus leading to calcium deposits in the blood vessels, lungs, eyes, and heart.

-Itching on the whole body.

**Ways to Reduce Phosphorus in Foods:**

- Limit the intake of foods that are high in Phosphorus.
- Stick to the specified amount of protein, as Phosphorus is found in protein-rich foods.
- Eat fresh fruits and vegetables that are low in Phosphorus.
- Avoid packaged foods that contain added Phosphorus.
- Read the nutritional information label on canned foods and look for Phosphorus or for words that contain: **PHOS, PHOS.**

**Daily Intake of Phosphorus……..mg**

**Some Foods and their Phosphorus Content**

| Type of Food | Quantity | Phosphorus/ serving (mg) |
|---|---|---|
| | | |
| Meat | 85 Grams | 412 |

| | | |
|---|---|---|
| Chicken | 145 Grams | 286 |
| Fish | ½ Fillet | 370-491 |
| Tuna | 1 Cup | 365 |
| Egg | 1 Egg | 100-115 |
| Skimmed Milk | 1 Cup | 247 |
| Full Fat Milk | 1 Cup | 205 |
| Low Fat Milk | 1 Cup | 224-234 |
| Skimmed Yogurt | 1 Cup | 356 |
| Full Fat Yogurt | 1 Cup | 216 |
| Low Fat Yogurt | 1 Cup | 327 |

| | | |
|---|---|---|
| Mozzarella and Cheddar Cheese | 30 Grams | 149 |
| Chocolate Milk | 40 Grams | 108 |
| Bran and Oat Cereals | 1 Cup | 690 |
| Barley | 1 Cup | 442 |
| Soybean | 1 Cup | 412 |
| Lentils | 1 Cup | 356 |
| Red and White Beans | 1 Cup | 233-262 |
| Peas | 1 Cup | 117 |
| Nuts | 30 Grams | 132-147 |

## Protein

Protein is an essential nutrient in building many body tissues. It is found in a wide range of foods; but in varying amounts.

It is found in large amount in animal products such as: meat, chicken, fish, eggs, and dairy products, and some vegetarian products such as: legumes.

It is found in small amount in starches and vegetables.

### Why should we pay attention to protein amounts?

When kidney function is affected, it loses its ability to remove protein waste that result from the process of

breaking down protein within the body, thus waste begins to accumulate in the blood.

**The intake of protein varied from one person to another depending on weight and health condition, so consult a nutritionist to determine the amount of protein that is appropriate for you.**

## How do we calculate our protein intake from food?

| | | |
|---|---|---|
| Protein Group | 30 grams of meat<br>30 grams of chicken<br>30 grams of fish<br>One egg | Each alternative contains 7 grams of protein |
| Dairy Products Group | A cup of milk<br>A cup of laban<br>A yogurt cup | Each alternative contains 8 grams of protein |
| Starches Group | A slice of toast<br>A quarter loaf of bread | Each alternative contains |

| | | |
|---|---|---|
| | One third cup of rice<br>One third cup of pasta<br>Half a cup of starchy vegetables | 2 grams of protein |
| Vegetables Group | A cup of uncooked vegetables<br>Half a cup of cooked vegetables | Each alternative contains 2 grams of protein |

## For Example:

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# Fluids

The amount of fluids intake varied from one person to another, however, it should be determined by the treating physician.

Fluids include all drinks and foods that are liquid at room temperature, such as: water, tea, coffee, jelly, ice cream, ice, and soup.

## Why should we pay attention to the amount of fluids intake?

If too much fluid accumulates in the body, it can have harmful effects such as:

- Swelling in the feet, ankles and wrist.

- Hypertension.
- Heart Rhythm Disorder (Arrhythmia).

## Ways to Reduce Thirst:

- Staying away from hot climates.
- Reducing salt in food.
- Eating allowed fruits cold.
- Sucking on ice cubes.
- Using mouthwash.

## The Daily Intake of Fluids…….ml per day

## Diet for Renal Patients (.....) Calories

### Breakfast:

- ..... Milk or laban full fat.
- ..... white toast or ..... white flat bread.
- ..... grams ..... low-fat, low-salt white cheese or cottage cheese.
- .....Fruit

**Snack:** • ..... ..... ..... .....

### Lunch:

- ..... grams of chicken breast, meat or fish.
- ..... cooked vegetables without fat.
- ..... rice, pasta, or ..... a flat white bread.
- ..... olive oil.
- .....fruit

**Snack:** • ..... ..... ..... .....

**Dinner:**

• ..... grams of chicken breast, meat or fish.

• ..... cooked vegetables without fat.

• ..... rice, pasta, or ..... a flat white bread.

• ..... olive oil.

**Snack:** • ..... ..... ..... .....

## This diet contains approximately:

- .....Calories
- ..... grams of protein
- .....grams of fat

| | |
|---|---|
| Fruit Group | Medium apple |
| | One tangerine/mandarin |
| | Half a cup of pineapple |
| | Half a cup of cranberries |
| | Half a cup of strawberries |
| | 10-15 grapes |
| | 8-10 cherries |
| | Half a cup of grape juice |
| | Half a cup of apple juice |
| Vegetable Group | Half a cup of carrots |
| | Half a cup of cauliflower |
| | Half a cup of cucumber |
| | Half a cup of eggplant |

| | |
|---|---|
| | Half a cup of garlic |
| | Half a cup of green beans |
| | A cup of all types of lettuce |
| | Half a cup of onions |
| | Half a cup of zucchini |
| | Half a cup of yellow squash |
| Dairy Products Group | Half a cup of full-fat milk |
| | Half a cup of full-fat laban |
| | Half a cup of full-fat yogurt |
| Protein Group | 30 grams of meat without fat |
| | 30grams of skinless chicken |
| | 30grams of fish |
| | 2 eggs whites |

| | |
|---|---|
| | 30 grams of low-fat and low salt white cheese |
| Starches Group | Half a cup of rice<br>Half a cup of pasta<br>One slice of toast<br>A quarter of flat bread<br>Half of a burger bun<br>Half a cup of mashed potatoes<br>Half a cup or 10 fingers of French fries |
| Fat Group | A teaspoon of unsalted butter<br>A teaspoon of vegetable oil<br>A teaspoon of unsalted margarine |

# لأن الوعي وقاية

## إدارة التثقيف الصحي

Outpatient Clinical Nutrition

Department

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