Nutritional Strategies

Multidisciplinary management of chronic heart failure (CHF) is one of the most effective models of care for reducing hospitalizations and mortality\(^1\). It should be patient-centred with a holistic approach to the patient, not only focusing on heart failure, but also the management of comorbidities such as hypertension, diabetes and improved patient well-being and self-management, leading to better outcomes\(^1\).

Patient education is vital to improve self-care and should be targeted and based on scientific evidence or expert opinion. Educational approaches should include, providing information in a variety of formats to make it accessible to patients, taking into consideration educational grade, health literacy, cultural background and language\(^1\). The HeFFSA Nutrition for a Healthy Heart Newsletter s form part of this multidisciplinary approach to provide the patient/client with CHF with all the necessary tools for successful disease management.

The recently published ESC Guidelines (2021) recommend a “Healthy Diet” as one of the important patient education and self-care focus topics\(^3\);

<table>
<thead>
<tr>
<th>Education topic</th>
<th>Goal for the patient and healthcare provider</th>
<th>Professional behaviour and educational tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy diet</td>
<td>Patient should know how to eat healthy and be able to prevent malnutrition and/or maintain a healthy body weight. Patient should avoid excessive salt intake (&gt;5 g/day).</td>
<td>The healthcare provider should discuss current food intake, the role of salt and other micronutrients, maintaining a healthy body weight, as well as the possible need for supplementation in case of micronutrient deficiency.</td>
</tr>
</tbody>
</table>
Using a creative social format, the “Nutrition for a Healthy Heart Newsletters” utilises an approach of active roles for patients and healthcare providers in the format of a simulated dinner party, with the healthcare provider as the host providing guests/patients with the appropriate nutrition intervention to achieve their heart failure management goals and an opportunity of reinforcing these messages and strategies at regular intervals.

Meet the guests:

She was recently discharged from the hospital after experiencing breathing complications due to excess fluid volume. She was diagnosed with heart failure after blood tests revealed increases in B-type natriuretic peptide (BNP).

Although once very active, she’s slowed down considerably after experiencing angina secondary to chronic hypertension. She’s been struggling with her low-salt diet and fluid intake restrictions but sees positive differences in her daily weight and how her clothes fit. She’s also dealing with the management of an increase in diuretic medication and her need for potassium supplements due to the potassium lost with diuretic use.

Nutritional Approach

Being a knowledgeable, considerate and caring host, you want to help and support Mary D with the appropriate diet and nutritional information to overcome some of the challenges she has been facing and to reinforce the positive changes she made.

Your nutritional approach for Mary D, which you will share and discuss with her, should include the following strategies:

1. **Preparing the meal and all dishes from scratch, using fresh whole foods (unprocessed or minimally processed).** By choosing fresh whole foods, you can decide how much or how little salt to add. Processed meats and other food products have much more salt than fresh meats and fresh vegetables.

2. **Embracing healthy fats and oils: A savoury strategy to lower sodium levels.** Skip most fat-free salad dressings and other similar products and use poly- or mono-unsaturated oils, such as olive or canola oil in a salad dressing or when oven-roasting meat, fish or vegetables. Or add nuts to a salad, not only do they provide healthy fats, but they also provide extra protein, fibre and other vitamins.
and minerals. And make sure to add fresh avocado to a salad, as they contain omega-3 fatty acids, vitamins and minerals, is high in soluble fibre and helps you feel fuller in between meals.

3. **Make sure to control portion sizes** – you'll scale back on the sodium and the kilojoules! A good rule of thumb is that the higher in energy a meal is, the more sodium it has.

4. **Produce first: Fill half of your plate with fruits and vegetables.** Fruits and vegetables are naturally low in sodium, and many fruits and vegetables are good sources of potassium. Making sure to eat plenty of fruits and vegetables with every meal will boost your potassium and shift the sodium-potassium balance in your favour.

5. **When shopping, be aware of the high-volume sodium sources.** Know which ingredients and individual food items are high in sodium, and eat them sparingly. Understand which categories of foods contribute the most sodium to our diets through repeated daily and weekly consumption (see list). Choose carefully when buying foods in these categories and/or eat less of these items. Read labels on products carefully and look for foods with less than 300 mg of sodium per serving. But pay attention to serving sizes, as they are often unrealistically small. A good rule of thumb for label reading is to look for no more than one milligram of sodium per one calorie of food (see list). Also be on the lookout for ingredients such as, monosodium glutamate, sodium citrate, sodium bicarbonate and sodium alginate as these all contribute to the total amount of sodium listed in the Nutrition Facts.

❤️ **Considering these nutritional strategies, the meal will consist of:**

- Grilled fish with fresh herbs and lemon / Baby potatoes boiled/baked in the skin /
- Fresh garden salad served with a home-made vinaigrette and for dessert, Fresh fruit salad with plain low-fat yogurt or maas and a sprinkle of chopped unsalted nuts (see recipes).

You can share additional information hand-outs with her to guide her on how to reduce portion sizes, and how to read food labels (see infographic handouts).
Heart Healthy Recipes

Grilled Fish with lemon & fresh herbs

**Ingredients:**
- 1/2 Cup fresh chopped herbs
- 4 fillets fish of your choice
- 1 Tablespoon fresh lemon juice
- 1 Tablespoon lemon zest
- 1 Tablespoon vegetable oil
- salt & pepper to taste

**Method:**
1. Preheat your grill to medium heat.
2. Pat fish dry with paper towels, and season both sides with salt & pepper.
3. On a large plate mix together the herbs, oil, lemon juice & lemon zest.
4. Generously coat fish on both sides and let it stand for 10 minutes.
5. Place the fish on the grill and grill for 4 min on one side, flip over and grill for 4 min on other side.

**Serves 4**

Fresh garden salad

**Ingredients:**
- 2 large tomatoes sliced
- 1 large or two small, green and/or red peppers, cut into squares or slices
- 2 stalks celery, with leaves, chopped
- 1 small cucumber, sliced
- 1 small onion, sliced

**Method:**
Place all the vegetables into a serving bowl. Serve with home-made vinaigrette to taste.

**Serves 4**

Home-made Vinaigrette

**Ingredients:**
- 3/4 to 1 cup vegetable oil
- 1/4 cup good-tasting vinegar or lemon juice
- 1/2 teaspoon salt
- 1/8 to 1/4 teaspoon black pepper

**Method:**
1. Place all the ingredients in a jar with lid, shake well to mix.
2. Taste and adjust to taste, add more oil for a more mellow taste / add more lemon juice for more tartness.

Makes about 1 Cup

Fruit Salad with yogurt & nuts

**Ingredients:**
- Assorted seasonal fruit, chopped
- Low-fat plain yogurt
- Assorted nuts of choice, unsalted

**Method:**
Mix fruit together (add a squeeze of fresh lemon juice to prevent browning of fruit), top with yoghurt and nuts, and serve.
How much salt is too much salt? (values per 100g) (English)

- **best choice**: fresh foods are naturally low in salt
- **0 g**

- **ok most of the time**: check the label and choose low salt varieties where possible
- **0.3 g**

- **limit**: not needed for a healthy diet, eat in small amounts occasionally
- **1.5 g**

What do the phrases on Food Labels really mean?

- **TABLE SALT** is made up of SODIUM & chloride
- 1 teaspoon of TABLE SALT contains 2,300 MG of sodium

- **140 mg** or less sodium in one serving
- **Reduced Sodium**

- **Low Sodium**

- **Very Low Sodium**

- **Sodium-Free**

- **No Sodium added to the food**

- **Unsalted**

- **35 mg** or less sodium in one serving

- **No Sodium added to the food**

- **25% less sodium than what the food normally contains**
How to read food labels

Knowing how to read food labels is very important in making healthier choices when choosing foods.

**Ingredients list**
- The ingredients are listed in order of highest quantity to lowest quantity.
- Food high in sugar, salt or fat usually will have these listed as one of the first three ingredients.
- Ultra-processed foods often have difficult to pronounce words and even strange numbers (that are usually the additives) in the ingredients list.

**Nutritional information table**
- Look at the nutritional information table to find out how much sugar, salt or fat is in a food.
- Use the following cut-off points when looking for foods that are lower in saturated fat, total sugar and sodium (salt) and higher in fibre.

<table>
<thead>
<tr>
<th>Per 100 g food or drink (not per serving)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Sugar:</strong></td>
</tr>
<tr>
<td>&lt;5 g per 100g food</td>
</tr>
<tr>
<td>&lt;2.5 g per 100 ml drink</td>
</tr>
<tr>
<td><strong>Saturated Fat:</strong></td>
</tr>
<tr>
<td>&lt;2.5 g per 100 g food</td>
</tr>
<tr>
<td><strong>Total Sodium:</strong></td>
</tr>
<tr>
<td>&lt;120 mg per 100g food</td>
</tr>
<tr>
<td><strong>Dietary Fibre:</strong></td>
</tr>
<tr>
<td>&gt;3 g per 100g food</td>
</tr>
</tbody>
</table>

Here are some of the common words to look out for:
- **Sugar**: sucrose, glucose, fructose, dextrose, syrup, cane sugar, fruit juice concentrate, honey, maltodextrin, maltose.
- **Salt**: sodium, monosodium glutamate (MSG), sodium bicarbonate, (baking soda), anything with 'sodium', flavour enhancers, soy sauce, brine.
- **Fat**: oil, vegetable fat, palm fat, hydrogenated fat, coconut, cream, shortening, butter, cocoa-butter.

Be careful of: low-sugar, reduced fat or other such health claims. Read all the nutrition information and compare with the values as given above. Sometimes the fat is replaced with sugar or vice versa (also not healthy), or it might be high in salt.

Remember: Fried ready-to-eat meals and fast foods can be high in trans-fats, which are unhealthy.

Remember: Fresh whole foods that require no food label are better for health.

Adapted from NNW 2019, www.nutritionweek.co.za
Handy Guide to Serving Sizes

Learn how to use your hand to estimate serving sizes and compare them to the food portions you eat.

**Dairy:** Aim to get 3 servings of Dairy each day. Here’s what a serving looks like.

- **Milk or fortified soy beverage:** 1 cup = 1 fist
- **Yogurt:** 3/4 cup = 1 fist
- **Cheese:** 30 g = 2 thumbs

**Protein foods:** Aim to eat 2 to 3 servings of protein foods each day, focusing on lean sources like poultry, seafood, and beans. Here’s what a serving looks like.

- **Meat and Poultry:** 90 g = Palm of hand
- **Fish:** 90 g = Palm of hand
- **Peanut Butter:** 2 tbsp = 2 thumbs
- **Nuts and Seeds:** 1/4 cup = Cupped hand
- **Legumes:** 1/2 cup = 1 fist

**Oils:** Aim for no more than 2 Tbsp OR 6-7 tsp of oil each day. Choose healthy unsaturated fat sources like sunflower, canola, olive, nuts and avocado. Here’s what a tbsp and tsp look like.

- **Margarine or Butter:** 1 tsp = 1 thumb tip
  1 tbsp = 1 thumb
- **Oil:** 1 tsp = 1 thumb tip
  1 tbsp = 1 thumb
- **Mayonnaise:** 1 tsp = 1 thumb tip
  1 tbsp = 1 thumb
Handy Guide to Serving Sizes

Learn how to use your hand to estimate serving sizes and compare them to the food portions you eat.

Vegetables and Fruit: Aim to eat 3-4 servings of Fruits and 5 servings of Vegetables each day. Here’s what a serving looks like.

- **Fresh or frozen vegetables**: 1/2 cup = 1/2 fist
- **Leafy vegetables**: 1 cup = 1 fist
- **Whole fruit**: 1 fruit = 1 fist
- **Fresh or frozen canned fruit**: 1/2 cup = 1/2 fist
- **Dried fruit**: 1/4 cup = Cupped hand
- **100% fruit juice**: 1/2 cup = 1/2 fist

Grains: Aim to eat 5-6 servings of Grains each day. Choose whole grains at least 50% of the time! Here’s what a serving looks like.

- **Bread**: 1 slice = Size of hand
- **Bread roll**: 1/2 small = Size of hand
- **Rice**: 1/2 cup = 1/2 fist
- **Pasta**: 1/2 cup = 1/2 fist
- **Cold Cereal**: 1 cup = 1 fist

HeFSSA
Heart Failure Society of South Africa