A person wearing a black and white striped shirt is cooking spaghetti in a black pan. The spaghetti is topped with green vegetables and small pieces of meat. Steam is rising from the pan. The person is using a silver fork to stir the spaghetti. The background is a bright, out-of-focus kitchen.

●  
**Enjoy eating well,**  
while living  
with **Familial**  
**Chylomicronaemia**  
**Syndrome (FCS)**

A guide for people living with FCS





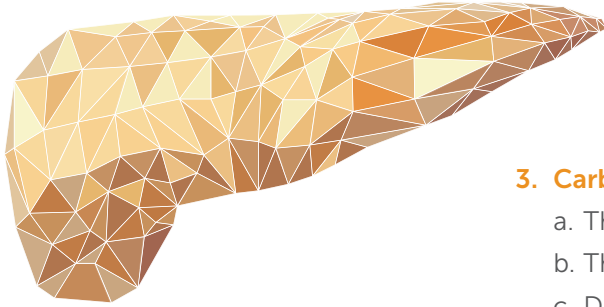


Photo: @lma174619

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# ● Introduction/Acknowledgements



The strict diet imposed on people living with familial chylomicronaemia syndrome (FCS), is characterised by restrictions and a guilty conscience when “dietary errors” are made. However, a good dietary attitude does not necessarily mean a fear of food, but rather KNOWLEDGE instead of a guilty conscience. Become more familiar with your body and learn what is good for you. This brochure is intended to be a guide on how to stay healthy, and enjoy eating at the same time.

PhD, Gabriele Skacel, Dietician

A handwritten signature in black ink, appearing to read 'G. Skacel'.



Eating is a need and enjoyment is an art. It is very important to us to give you all the options for an enjoyable diet, so you experience fewer restrictions. Epicureans are much more optimistic, happy, well-balanced and relaxed! Regularly visit specialised nutritionists, who will help you with creative ideas to upgrade your diet in a varied and enjoyable way. Whenever you browse through this brochure, keep in mind: “Enjoy life by eating better!”

Edburg Edlinger BSc, Dietician

A handwritten signature in black ink, appearing to read 'Edburg Edlinger'.

# The FCS Nutrition Plate

**Liquids**  
30 ml / kg of  
body weight



**Protein sources**  
3 servings of dairy products  
1 serving of meat, fish,  
egg, legumes

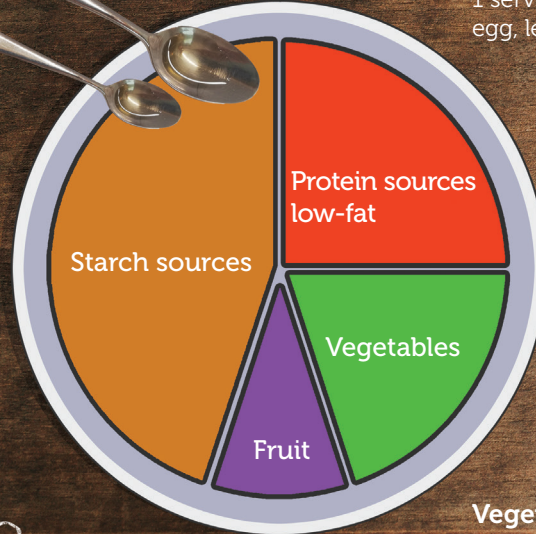
**MCT fat**  
2-4 tablespoons



**Oils**  
1-2 teaspoons  
of walnut or  
soybean oil



**Starch sources**  
For a filling meal  
5-7 servings



**Vegetables**  
Up to 3 servings

**Fruit**  
2 servings



# 1. The FCS nutrition plate

The FCS nutrition plate is used to illustrate the **ideal composition of a nutritious meal** and consists of several components. Around the plate, you can see nutritional recommendations on **how many servings** of the **different food groups** you should enjoy per day. Learn more about serving sizes on page 10.

There is **no specific IDEAL plate** for everyone, because energy requirements vary individually from person to person. Calorie requirements depend on **numerous factors** (age, gender, body size, activity, genetics etc.). People with lower **energy requirements** include:

- Seniors
- Women
- Short people
- People with little physical work (office work) or who do not exercise often
- People who genetically expend less energy and thus become easily overweight

A low energy requirement does not mean having to “eat half as much”. A well-designed energy-conscious nutrition plate is designed to ensure that the plate remains full. This is made possible by **increasing the amount of low-energy foods** and **reducing the amount of high-energy ingredients**. Energy sources such as starch (bread, pasta, potatoes, cereals etc.) and fats must be used more sparingly. Instead, a **larger serving of vegetables or salad** may fill the plate. However, the **supply of protein** must be **ensured**.



Some people need an extra dose of energy. People with **higher energy requirements** include:

- Adolescents
- Men
- Tall people
- People who perform strenuous physical work
- Athletes
- People who genetically require more energy and easily lose weight, or tend to be underweight
- Pregnant and breastfeeding women

The **FCS diet** is challenging for people with **high energy requirements**. The extra calories can **only** be met **to a limited extent with so-called medium chain triglycerides (MCT) fats**. **Energy sources** such as starch (bread, pasta, potatoes, cereals etc.) must be incorporated **more often**. If the quantity becomes an issue, **a carbohydrate drink** (sugar and/or maltodextrin) **or sweets** can also be a **necessary energy supplement**. During exercise and physical work, our muscles consume more sugar as a quick

source of energy. Food containing carbohydrates raises our blood sugar level, our muscles can then absorb sugar directly into our cells and use it for energy production. This means that there is no increase in triglycerides in the blood. Another option is to raise the level with very **low-fat dairy products** or other **sources of lean protein**. Read more about carbohydrates and their effect on page 24.

## a. Composition of a well-balanced meal

### Liquids

Have **a drink** with **every meal!** The best thirst quenchers are **tap water, mineral water or unsweetened tea**. In addition, get inspired by many more beverage ideas in the section "Drinking management while living with FCS".

## Vegetables / salads / fruits

Enjoy **vegetables** raw or **cooked as a: side dish, main course, salad, something to nibble on** or in **soup**.

Vegetables make the plate a feast for the eyes. Or **instead of vegetables** you can use **fruit** as a **dessert**. Add a variety of **colourful ingredients** and garnish your dish lovingly.

**Tip:** You will find a delicious raspberry ice cream recipe in the section: "Enjoy and celebrate, while living with FCS", that consists of fruit alone!

## Starch sources for a filling meal

Due to your severe restriction of fat, you need **larger quantities of starch** to become satiated. Alternate with **potatoes, cereals** and **cereal products** (bread, pasta, rice, polenta, millet, buckwheat etc.). You might prefer the **whole grain variety** with its extra vitamins, minerals and fibre.

## Sources of protein

**Once a day**, choose from a group of **low-fat meat, poultry, fish and eggs**. Vegetable protein sources, such as **legumes (beans, chickpeas and lentils)**, are particularly recommended. Enjoy **low-fat dairy products such as milk, yoghurt, cheese, quark (curd), cream cheese** or high-quality plant-based protein sources (legumes) with the other main meals.

## Oils & MCT fats

You may use **1–2 teaspoons of walnut oil or soybean oil per day**.

In addition, **MCT fat** in the form of oil or margarine is available to you for **energy enrichment**.

You can read more about essential fatty acids and the ideal dosage of MCT fats in the section "Fats and MCT fats".

## b. Servings and serving sizes

The **hand measure** is a good measure and can also be used with children. Based on the scientific recommendations of the European Nutrition Societies, and modified to the pathophysiological challenges in FCS, the following **serving quantities** are recommended **for one day**:

### Protein sources

- **3 servings per day:** Low-fat dairy products such as cheese, milk, yoghurt, skyr, quark (curd)
- **1 serving per day:** Low-fat meat, poultry, fish, eggs, legumes

### Carbohydrate sources / starch sources

- **For a filling meal,** this corresponds to about 5–7 servings per day

### Vegetables & salad

- **Up to 3 servings per day**

### Fruit

- **2 servings per day**



## Oils & MCT fats

---

- 1–2 tsp walnut oil or soybean oil per day
  - 1 MCT fat according to tolerance
- 

## Liquids

---

- **30 ml per kg of body weight**
  - **Example:** Body weight of 70 kg x 30 ml = 2.1 l drinking quantity
- 

### What is the size of a serving?

Serving sizes vary depending on the energy requirements of the person. Our energy requirements depend on many factors:

- Age
- Gender
- Size
- Weight
- Physical activity
- Genetics

The recommendations provide you with a **balanced energy and nutrient intake**. With a healthy and balanced diet, it is not necessary to weigh everything exactly. The quantities are **guidelines**, and can be smaller or larger depending on individual needs. The ideal individual serving size can be easily estimated with your own hand, and can therefore also be used with children. **Hand measuring** works quickly and the approximate ratio is individually adjusted.

## Serving sizes per day for an adult with FCS (also applicable to children)

Food	Serving size
<b>Drinks (1 to 3 litres per day or 30 ml per kg of body weight)</b>	
Water, unsweetened tea	Preferable
Coffee, black tea, green tea	Up to 2–4 cups a day (caffeinated) (not appropriate for children)
<b>Vegetables &amp; fruit (5 servings a day)</b>	
Vegetables (up to 3 servings a day)	
Vegetables	1 fistful or 1 handful (100–150 g)
Salad	2 handfuls – a 'bowl' formed with 2 handfuls (75–100 g)
Fruit (2 servings a day):	
Fruit (any variety except avocado)	1 fistful or 1 handful (100–150 g)
<b>1 serving of fruit or vegetables can be replaced by 1 glass (200 ml) of fruit juice or dried fruit (25 g)</b>	
<b>Starch sources for a satisfying meal (5–7 servings a day)</b>	
Potatoes	2 fistfuls (200–250 g or 3–4 medium-sized pieces)
Pasta	2 fistfuls (200–250 g cooked)
Cereals: rice, polenta, millet, buckwheat etc.	2 fistfuls (150–180 g cooked) or 50–60 g weighed uncooked
Bread & pastries	1 handful of bread or 1 roll (50–70 g)
Muesli & cereal	1 handful (50–60 g)
<b>Protein sources (4 servings a day)</b>	
Low-fat milk and dairy products (3 servings a day)	
Milk, low-fat yoghurt	1 glass or 1 cup (180–250 g)
Low-fat cheese	2 handfuls <sup>1</sup> , thin slices or 1 width of an index finger (50–60 g)
Quark (curd cheese), skyr, cream cheese, low-fat cottage cheese	1 small fistful (100–150 g)

## Food

## Serving Size

### Other sources of protein: choose 1 serving per day

Low-fat meat and sausages (up to 3 servings per week)

Low-fat meat 1 palmful<sup>2</sup>, finger-thick piece (100–150 g)

Low-fat sausage up to 3 palmfuls<sup>2</sup>, thin slices (30–50 g)

Low-fat fish (1–2 servings per week)

Low-fat fish 1 palmful<sup>2</sup>, finger-thick piece (150 g)

Eggs (3 servings per week)

Egg 1–2 eggs (approx. 60–120 g)  
Egg whites are fat-free

Legumes as vegetable protein sources

Beans, lentils, chickpeas, soya etc. 1–2 handfuls (180–400 g cooked; or 70–150 g weighed uncooked)

### Oils & MCT fats

Daily dose of walnut oil or soya oil 1–2 teaspoons (5–10 g)

MCT oil and MCT margarine 2–4 tablespoons (20–40 g)

1 Handful: hand with fingers

2 Palmful: hand without fingers





## c. Mealtimes during the day

The optimal **arrangement of mealtimes** is **individual**.

Everyone should recognise their own body rhythm. For an ideal energy supply and fewer digestive problems, **5 meals a day** are an ideal timetable for greater **productivity and well-being**. However, 4 or 3 meals a day may be a better choice for you based on your lifestyle.

Nevertheless, **3 full balanced main meals**, such as breakfast, lunch and dinner are considered a **minimum guarantee for your metabolic processes**.

Depending on your daily routine, appetite and personal habits, the day can be supplemented with one or two snacks (morning/afternoon). In this case, the serving size for the main meals should be adjusted or reduced accordingly. **Healthy snacks between meals** provide a small **energy boost and prevent food cravings**. Too much time between meals may lead to uncontrollable eating behaviours. **Ideal snacks** include: **a serving of fruit or vegetables, a low-fat dairy product, bread with low-fat cottage cheese, low-fat quark spread with vegetables or muesli with fruit**.

### Warm or cold?

Enjoy your meals **warm or cold**. Many feel a greater need for warming up food in the colder seasons. An advantage of warm meals is the preparation. It offers a more nutritional balance and can be enjoyed slowly. A well put together cold meal can also be as nutritional and enjoyable. Always remember: **You eat with your eyes too!**

#### d. Compound meals such as dumplings, lasagne, etc.

The FCS nutrition plate is a simple way to illustrate how **to create a balanced meal from three different foods**. For dishes with mixed ingredients such as dumplings, lasagne, pizza, casseroles or pasta salads, the **same servings apply** in principle.

Examples:

##### Dumplings:

Starch sources: Bread rolls, flour, breadcrumbs

##### Vegetables:

Spinach or grated vegetables in a dumpling, or salad with it

##### Sources of protein:

Eggs, skimmed milk, possibly low-fat cheese

##### Lasagne:

Starch sources: Pasta sheets

Vegetables: Tomato (sauce), other vegetables such as carrots, courgettes, spinach, aubergine etc, or accompany with a salad

Sources of protein: Skimmed milk in the béchamel sauce, low-fat minced beef or legumes and low-fat cheese

To ensure that the meal is **balanced**, there should be **plenty of vegetables**, or you can add an **extra serving of vegetables** with a vegetable soup as a starter, and/or a salad to spice things up.

You can also put **salads** together to make a **balanced main meal**: For pasta salad, we would add various **colourful vegetables** and supplement it with **protein-rich** foods such as: low-fat cheese, ham, tuna in its own juice, egg, beans etc.

A salad platter is usually offered with protein sources (e.g., egg, lentils, tuna in its own juice, low-fat ham or cheese). The **addition of bread** makes it a complete dish that is fulfilling.

## e. Breakfast

Sleep at night provides us with important cell regeneration and in the morning, after the fasting phase, our body needs **fluids and energy**. Start the day with a **balanced breakfast**, and then enjoy this first main meal **when hunger** strikes. Accompany the meal with a drink such as water, tea, or coffee. Examples of balanced compositions are:

- Whole grain bread with low-fat cheese or quark spread (curd cheese spread), and fresh vegetables (e.g., tomatoes, cucumbers, peppers)
- Whole grain bread roll with low-fat cream cheese, soft-boiled egg, and fresh vegetables (e.g., cress, radishes)
- Whole grain bread with MCT margarine and jam, and a lean natural yoghurt with fruit (e.g., apple)
- Porridge with low-fat milk and fruit (e.g., pear)
- Muesli with low-fat natural yoghurt and fruit (e.g., berries)



Photo: © Maria Fadeeva – www.istockphoto.com

### Not hungry in the morning?

Eat breakfast when hunger strikes. But perhaps hunger is being curbed by coffee, cigarettes or time pressure? **Tip:** Get up at a good time and don't rob your pangs of hunger with coffee or other appetite suppressants.

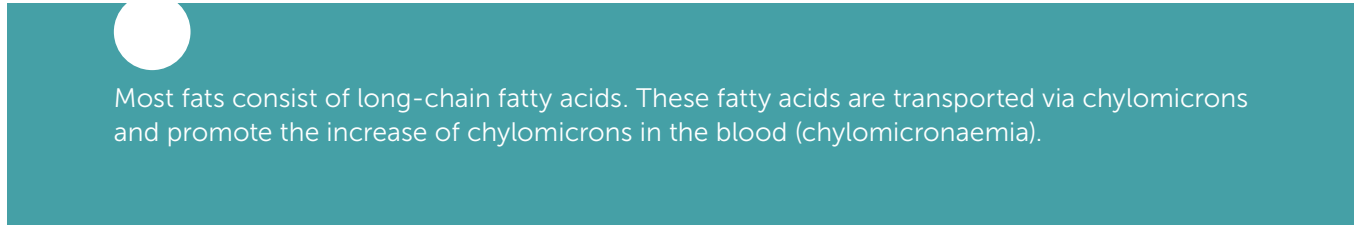
It's better to make **coffee a breakfast companion**. There's no need to have breakfast immediately after getting up. However, everyone should give their body at least a small nutritious energy boost in the first two-three hours of the morning.

It's the quantity that matters: Eat a small breakfast when you have little appetite and enjoy a snack in the morning instead.

## 2. Fats and MCT fats

When living with FCS, a **very low-fat diet** is necessary. Avoid “normal dietary fats” as much as possible. They are found in the following foods:

- **Oils:** sunflower oil, rapeseed oil, maize germ oil, olive oil etc.
- **Spreadable fats:** butter, margarine, diet margarine
- **“Hidden fats”** found in dairy products (milk, yoghurt, cream, cheese, etc.), meat, fish, sausage, egg yolk, savoury biscuits, chocolates, cakes, pastries etc.



Most fats consist of long-chain fatty acids. These fatty acids are transported via chylomicrons and promote the increase of chylomicrons in the blood (chylomicronaemia).

A completely fat-free diet is not possible, as the main nutrients of protein, fat and carbohydrates are present in all foods.

## a. Essential fatty acids

The body needs a small amount of **essential fatty acids**. They are called “**essential**” because the body cannot make them itself, and they have to be taken in with food. They are called **linoleic acid and alpha-linolenic acid**, and your body cannot produce them itself. As an FCS patient, you should also be well supplied with these fatty acids. We need essential fatty acids to build cells and as a building block of hormones. In children, they are important for growth and brain development.

### Essential fatty acid requirements (adults)\*

Reference values for nutrient intake

- Linoleic acid = 2.5 % of energy intake
- Alpha-linolenic acid = 0.5 % of energy intake
- Total 3 % of energy intake

This results in the following daily dose:

- **1–2 teaspoons (5–10 g) of walnut or soybean oil per day**

## b. Your personal fat tolerance

When living with FCS, a **maximum of 10–15 % of daily energy intake** is possible **in the form of fat**. The best way to assess your personal fat tolerance is to **check your triglyceride levels** regularly (monthly). Keep a food diary, starting 3 days before the blood test. Then discuss your personal diet plan with your nutritionist. **Exercise** is not only **fun** but also lowers triglyceride levels. For a goal-oriented interpretation, keep a record of your physical activity.

**Exercise is fun and lowers triglyceride levels!**

\*See references on p. 60



## Assessment of your fat tolerance:

Estimated energy demand (measurement, formula calculation)	Fat intake in grams at 10–15 % of total energy intake	Recommended fat intake for healthy people = approx. 30 % of total energy demand
1,500 kcal	17–25 g	50 g
1,600 kcal	18–27 g	53 g
1,700 kcal	19–28 g	57 g
1,800 kcal	20–30 g	60 g
1,900 kcal	21–32 g	63 g
2,000 kcal	22–33 g	67 g
2,100 kcal	23–35 g	70 g
2,200 kcal	24–37 g	73 g
2,300 kcal	26–38 g	77 g

### c. Medium-chain triglycerides (MCT)

**MCT fats (medium-chain triglycerides)** are not transported in chylomicrons. They are therefore ideally suitable for you as an FCS patient and can be used instead of normal dietary fats.

You can get **100 % MCT oil** or **77 % MCT** oil at health food shops. 77 % MCT oil can be heated slightly. You can use **MCT margarine** or special tasty MCT spreads.

Note that **not all MCT spreads** are **appropriate for your particular diet!** In addition, there are many other products on the market with MCT (e.g., MCT chocolate spread, MCT chocolate etc.) from the “ketogenic line” that are completely inappropriate for **FCS!**

MCT oil helps your body produce energy and can improve the taste of very low-fat dishes.



**CAUTION:** In severe forms of FCS, too much MCT fat can promote the production of triglycerides by the liver.

#### d. Cooking with MCT

Large amounts of MCT fats can cause stomach and intestinal problems. Therefore, start **dosing gradually**.

Start with 1 teaspoon of MCT oil (5 g) per day and increase by 1 teaspoon each day up to approx. **2–4 tablespoons per day (20–40 g)**. You can use MCT fat to add flavour to soups, warm dishes or salads.

If you start with MCT oil, check your triglyceride levels once a month.

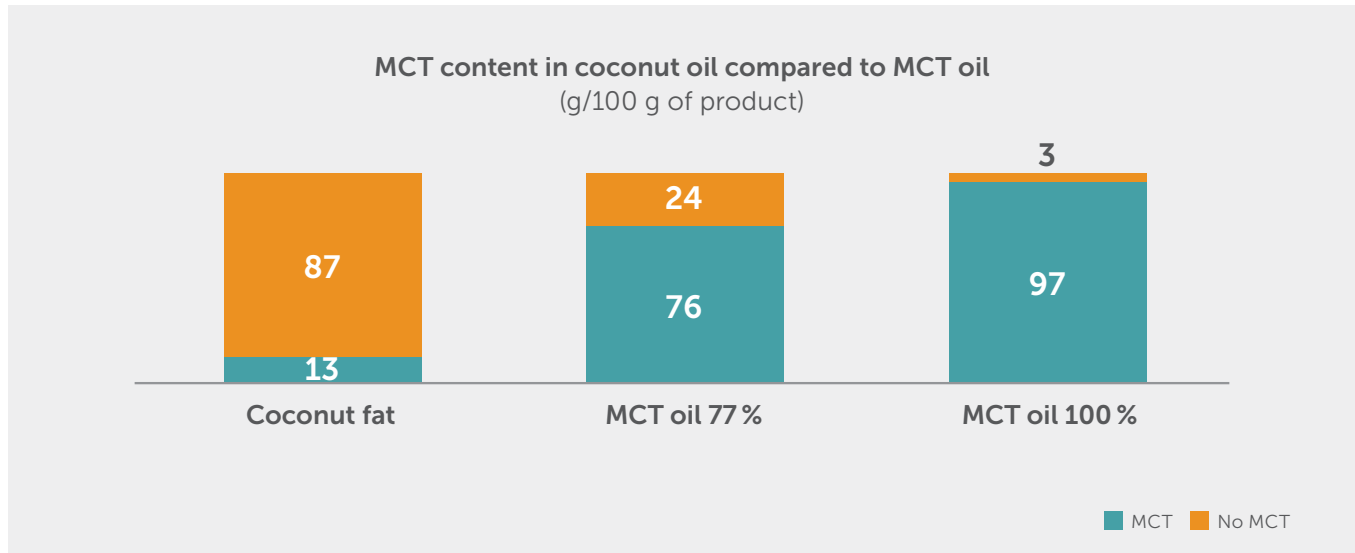
##### **Dosage information:**

2 teaspoons are the same as 1 tablespoon!

## Maximum cooking temperatures of MCT fats

MCT oil 77%	up to a maximum of 150 °C
MCT oil 100%	not suitable for heating / boiling
MCT margarine 83%	up to 180 °C for a maximum of 40 minutes

Pure **coconut oil** contains only a **very small amount of MCT fat**. It can **not be used as a substitute for MCT oil** from a health food store or pharmacy. If you are unsure, it is best to ask your trusted nutritionist.



## e. Omega-3 fatty acids

It has long been assumed that **high-dose fish oil (omega-3 fatty acids)** can lower triglyceride production by the liver. However, this notion has changed in the case of severe forms of FCS. **Fatty fish** (salmon, mackerel) increases triglyceride levels and is **inappropriate for FCS**. You can discuss with your nutritionist whether and which dosage, fish oil capsules could be useful for you.

## f. Fat-soluble vitamins

To stay fit and healthy, you naturally need an **adequate supply of vitamins and minerals**. With FCS, a deficiency of fat-soluble vitamins (A, D, E, K) may occur due to a low-fat diet. Discuss supplements with your nutritionist.



Photo: © kerrick – www.istockphoto.com

# 3. Carbohydrates and FCS

All carbohydrates consumed (pasta, rice, potatoes, etc.) are broken down into sugar in the intestine and enter the bloodstream. If the sugar in the blood (blood glucose) is not needed to produce energy for the cells, the carbohydrates are converted to **triglycerides** in the liver. Thus, only excess carbohydrate intake leads to an increase in triglycerides in the blood.

The triglycerides in the liver are incorporated into transporter **VLDL** (very low-density lipoprotein). By means of a special blood analysis in a metabolism centre, it is possible to determine what proportion of the triglycerides in the blood is caused by VLDL.

With FCS, "normal" dietary fats can only be metabolised to a very limited extent. Carbohydrates are therefore the most important source of energy.

**Carbohydrates** account for about **55–60 % of energy intake**. With an energy requirement of 2,000 kcal, this equates to approx. 275–300 g of carbohydrates. Carbohydrates are found in **bread, cereal products, rice and potatoes**.

Carbohydrates are necessary for your body to have **enough energy** available. This energy is not only needed for physical activity and exercise, but also for your **mental fitness**. Did you know that our brain needs 100–140 g of sugar per day as a source of energy? By the way, physical exercise has a very favourable effect on your triglyceride level! That's why you should schedule daily exercise sessions.

Schedule daily exercise sessions!

## a. The “sugar taboo”

As with a healthy diet, **use pure sugar sparingly.**

Sweets and soft drinks containing sugar cause a **rapid rise in blood sugar.** As a result, the hormone insulin is released more frequently. Insulin in turn promotes triglyceride production in the liver.

Enjoy sweets as a dessert and not in place of a well-balanced meal. If you feel like having a sweet drink, drink it with a meal. By using these tricks, you delay the rise in blood sugar and can enjoy it now and then. Read more about the background in the next section.

## b. The trick with the glycaemic index and glycaemic load

**The glycaemic index (GI)** helps estimate how quickly foods cause a rise in blood sugar levels compared to glucose. The lower the GI, the slower or lower the blood sugar level rises.

### Glycaemic index compared with glucose: (GI 100)

Spaghetti (white):	49
Boiled potatoes:	78
Banana:	51

**The glycaemic load (GL)** takes into account the amount of carbohydrates per serving of a food. For example, 40g of white bread (1 slice) contains the same amount of carbohydrates as 300 g of strawberries (1 large bowl).



However, since we *should* always enjoy mixed meals, GI and GL alone have little significance. Both the **amount of carbohydrates** and the **composition of a meal** are decisive for the **glycaemic effect**.

The **rise in blood sugar level is also influenced by:**

- Total carbohydrate content of a meal
- Fibre
- Fat content
- Protein content
- Consistency: liquid or solid food
- Processing: raw, cooked or cooked and cooled

## The following principles illustrate the glycaemic effects

The greater the carbohydrate content in a meal, the greater the rise in blood sugar levels. Starch (rice) leads to a slower rise in blood sugar levels than sugar. Fibre (whole grain products) also delays a rise in blood sugar levels.

### Practical tip:

- Mix white flour with wholemeal flour
- Supplement white bread with vegetables
- Eat a salad with your lunch

Fat (MCT oil) and protein in food also prevent a rapid rise in blood sugar levels.

**Practical tip:**

- Eat “mixed” meals that contain protein sources and MCT fat, in addition to starch sources and vegetables
- Use the FCS nutrition plate as a guide
- Desserts with dairy products and MCT fat have a more favourable effect on blood sugar levels than pure sugar in liquids (soft drinks)

Liquid food leaves the stomach quicker than solid food. This means that the digestion process is shorter and the rise in blood sugar level is faster.

**Practical tip:**

- Fruit juice causes a faster blood sugar response than whole fruits

The degree of processing also influences the course of the blood sugar curve.

**Practical tip:**

- Fresh fruit or raw oatmeal have a slower glycaemic effect than stewed fruit, cooked fruit or cooked oatmeal (porridge)
- Pasta that is freshly cooked causes a faster rise in blood sugar levels than pasta that is cooled and eaten cold. Cooling creates a fibre-like compound called “resistant starch”
- Eat cold varieties of pasta or other cooked cereal products, e.g., mixed salads with pasta, couscous, pearl wheat, millet etc.
- Give preference to fresh fruit or vegetables at meals with a strong glycaemic effect

### **Blood sugar levels rise quicker when a meal...**

- ... has more fluid
- ... has lower protein and fat content
- ... is poorer in fibre
- ... is richer in sugar and white flour

### **and it rises slower when it...**

- ... is more solid
- ... has higher protein and fat content
- ... is richer in fibre
- ... has less sugar and white flour

### **Your personal nutrition plan and carbohydrate requirements depend on numerous factors:**

- Age
- Gender
- Physical activity
- Physical exercise
- Other existing diseases, such as diabetes mellitus
- Planned pregnancy

### **c. Diabetes and FCS - a topic on its own!**

Some FCS patients develop diabetes mellitus over time. If you are affected by diabetes, it is especially important to maintain a good blood glucose control. High blood sugar also increases triglyceride levels. Discuss your diet with your nutritionist.

# 4. Enjoy and celebrate, while living with FCS

## Your birthday party

If you are planning your own birthday party, prepare food that mainly you yourself can eat. Also offer your guests our tasty low-sugar and alcohol-free cocktails. Your guests will be delighted and can drive home carefree 😊!

## Invitation from friends

As an FCS patient, you can also look forward to being invited to a friend's house. Your hosts will most probably like to spoil you with culinary delights. Discuss the menu-plan in advance or take low-fat supplements along with you (e.g., low-fat yoghurt

sauce etc.). If you are bringing the dessert, then of course prepare a low-fat variety. Conjure up delicious raspberry or chocolate banana ice cream in no time (recipe on pages 39 & 41). Your friends will be thrilled!

## Barbecue

There are many enjoyable options for you at the summer party, such as a low-fat beef mince burger, grilled corn, low-fat fish (cod/hake), and of course baked potatoes with low-fat dip or garlic baguette (spread with garlic MCT margarine only after grilling). You can prepare vegetables and salads with MCT oil.

## Eating out at a restaurant

Plan your visit to the restaurant in advance. Discuss with the chef which dishes are possible for you, and what needs to be taken into account during preparation. If I were a chef, I would recommend a juicy lean steak with grilled vegetables and baked potato.

## At the pizzeria

You should be allowed to take along your low-fat pizza dough with accent oil to your favourite pizzeria and discuss your favourite toppings with the pizza cook. Have the pizza topped with corn, rocket, mushrooms or tomatoes. Lean ham is also possible. If you like, take along low-fat mozzarella.

Epicurean tip: Mix pressed garlic with MCT oil and coat the crispy pizza crust.

## Cooking tips

Buy a hot air fryer for fried potatoes and a crispy wiener schnitzel. Most dishes will also do well in the oven or steamer, like baked vegetables with potatoes, home-made pizza, low-fat fish in foil, beef meatloaf, casseroles etc.

## Fat tastes good

Use MCT oil or MCT margarine for pasta dishes and your favourite pastries. Refine with home-made garlic MCT oil.

## Baking and cooking with creativity

If you see a great recipe on the internet or in a magazine, simply adjust it to your needs. Use wholemeal flour instead of white flour, or mix the flours in a 1:1 ratio. Reduce the sugar content, or partially replace the sugar with sweetener or erythritol. Replace normal fats and oils with MCT fats. Instead of fat cream, use a light cream made of quark (curd), pudding or yoghurt with low-fat ingredients.







## a. Indulgent snacking

People with FCS are also human beings and have **pleasure needs** that should be satisfied. In nutritional psychology, there is the principle that “prohibitions are prohibited”. However, people with FCS have to restrict themselves much more than healthy people. With the following ideas, we serve up enjoyable options that are easy to implement in an FCS diet.

### 7 Recommendations for enjoyment (according to Dr. Rainer Lutz)

- Pleasure takes time
- Enjoyment and pleasure are allowed
- Enjoyment is not something you can do on the side
- Less is more
- Choose what is good for you
- No experience, no enjoyment
- Enjoyment is an everyday thing

### For those with a sweet tooth

If you make your own sweet treats, you can modify a relatively large number of snacks to be appropriate for FCS. You can use **MCT fats** specifically for more flavour or for energy enrichment. **Chocolate lovers** can conjure up the popular chocolate flavour in their dishes by using **low-fat cocoa powder** (baking cocoa, cocoa heavily de-oiled).

### More flavour added by flavourings

Since neither alcohol, butter, nor nuts are appropriate for FCS nutrition, you can fall back on the ever-growing **variety of baking flavourings**. You can find flavourings in countless varieties in the baked goods department or in the drugstore: **butter, rum, almond, coconut, nut nougat, chocolate, caramel, biscuit dough, cheesecake, butter biscuit etc.**

Try out your favourite flavour and test several brands until you find the right one to refine your sweet creations.



**Nutty expert tip:**

Another idea for a more nutty flavour, is to use highly de-oiled nut flours, which are in fact the residue after oil pressing. You can find flours made from almonds, hazelnuts, coconut etc. Mix just a small amount of these into the flour to get a subtle nutty flavour enhancement.

Please use only highly de-oiled flours with a fat content of less than 10 %, equivalent to 10 g fat per 100 g flour.

For example, if you have a cake recipe with 150 g flour, use 130 g of normal flour and 20 g of strongly de-oiled nut flour.



## Home-made sweet snacking moments:

### Sweet milky delights:

- Drinking cocoa made from skimmed cocoa powder (cocoa heavily de-oiled)
- Low-fat pudding (vanilla, chocolate etc.)
- Low-fat yoghurt with fruit (can be frozen to make ice cream)
- Rice pudding, semolina porridge, millet porridge with fruit made from low-fat ingredients
- Lean curd cream (curd cheese cream) with fruit

### Cake delights:

- Cheesecake (made with low-fat quark and MCT fat)
- Sponge cake roulade with jam / pudding / chocolate cream with added MCTs
- Cake or fruit cake with MCT fat
- Apple strudel (low-fat strudel dough, heat bread crumbs with MCT margarine and low-fat milk to coat the strudel)

### Ice cream delights:

- Cream ice cream made from low-fat ingredients
- Fruit ice cream



**Tip:** Try the raspberry ice cream on page 39

### Chocolate delights:

- Banana-chocolate mousse (recipe on page 40)
- Chocolate banana ice cream (recipe on page 41)
- Chocolate cake (low-fat sponge cake or sponge cake with MCT fat and low-fat cocoa powder)

### Warm sweet delights:

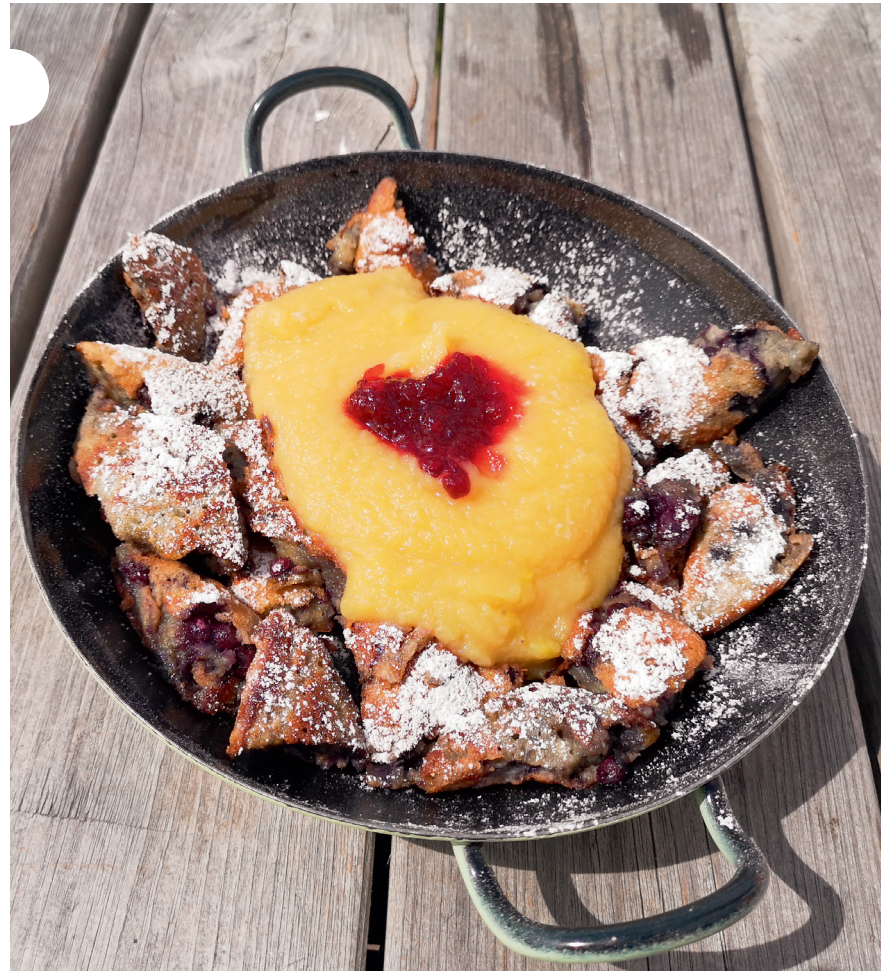
- Curd dumplings, apricot dumplings, Kaiserschmarren, pancakes or casseroles are also possible (if you use MCT oil or MCT margarine for baking)

– For dishes with lots of eggs (more than 2 eggs per serving) you can try out the following ideas:

- If there are 4 eggs in the recipe, use 1–2 whole eggs. Use only the egg white of the remaining eggs
- You can make Schmarren with semolina or cornmeal (polenta) without using any eggs
- Egg substitutes are also commercially available. **Make sure that the fat content is low!**

### Biscuits / bars / energy balls:

– For the production of wafers, biscuits, energy balls, the same rules for the warm sweet delights apply!



### The following low-fat sweet delicacies are commercially available:

- Candies, gummy sweets, liquorice
  - Protein pudding
  - Protein cream
  - Ice cream:
    - Water ice, popsicles
    - Special low-fat cream ice cream
- Try to enjoy foods that are as fat-free or low-fat as possible!

#### **What is the definition of low-fat?**

Foods below a content of 1 % are low-fat. This means that in 100 g of food there is less than 1 g of fat.

**If you want to use a food higher in fat, pay attention to the amount!**

## Example of nutritional information from a low-fat food:

Nutritional values	per 100 g
Energy	366 kJ / 86 kcal
Fat	<0.4 g
Saturated fatty acids	<0.1 g
Carbohydrates	16 g
Sugar	14 g
Fibre	2.7 g
Protein	0.7 g
Salt	<0.01 g



Photo: © Edburg Edlinger

## What to do when you crave sweets?

Consider whether you have eaten enough at your main meal. The longer you put off meals, the greater and more uncontrollable hunger becomes. In these situations, we find it difficult to eat prudently. Our body cries out for energy-rich emergency solutions that plunge us into nutritional chaos.

We are allowed to have something sweet now and then, but it is best to have it in a **small amount, and to enjoy it consciously and to the full extent**. The prerequisite, however, is that we do not always use sweets as a response to hunger. A secret snack is quickly gone, provides little satisfaction and disrupts your ability to enjoy other healthier options. With open and deliberate bits of indulgence, a dessert for example, a small amount will easily satisfy you.



## For **salt lovers & nibblers**

Salty snacks can also be prepared in a way that is appropriate for FCS. Use only MCT fats for the ideas presented here.

### Home-made savoury snacks:

- Roasted low-fat legumes: chickpeas, beans, peas, lentils
- Crisps, potato chips (use hot air fryer)
- Maize chips
- Vegetable chips made from beets, carrots, celery, parsnips, sweet potatoes, Jerusalem artichokes, etc.
- Popcorn (DO NOT use microwave popcorn but popcorn maize)
- Crackers & snacks, e.g., curd puff pastry with MCT margarine and low-fat quark (low-fat curd cheese)

### Commercially available salty delights:

- Salted rice or corn wafers
- Salty sticks
- Low-fat crackers & snacks

Also take the **lowest possible fat content** into account. Of course, the **amount** you eat is also important. Even though salty sticks, for example, contain about 2 % fat, a dose of 25 g (about a handful) is quite acceptable.

### b. Epicurean recipes

Try the following simple recipes for sweet treats and delight your family and friends!

- Raspberry ice cream
- Chocolate banana mousse
- Chocolate banana ice cream

# Raspberry ice cream

for 2 servings

## Ingredients:

200 g frozen raspberries  
100 g ripe banana (1)

## Preparation:

Peel the banana, cut into pieces and place in a tall container or in an electric blender. Blend well. Now add the frozen raspberries and finely puree. Serve garnished with fruit. Delicious!

## Epicurean tip:

Instead of raspberries, you can use any other preferred fruit! Ripe fruit such as apricots, apples etc. Cut into small pieces and chill in the freezer for a few hours. Further preparation remains the same!



Photo: © Nadja Coser

## Expert tip:

Fruit causes a rapid rise in blood sugar. To reduce the glycaemic effect, you can combine the ice cream with quark (curd) or yoghurt. Protein-containing food remains in the stomach longer, and thus results in a slower nutrient yield in the small intestine. Blood sugar rises more slowly with a mixed diet.

# Chocolate banana mousse

for 1 serving

## Ingredients:

100 g pulp of a ripe banana (1)  
2 tbsp low-fat cocoa powder (10 g)  
4 tbsp boiling water (40 g)  
1 pinch of cinnamon  
Optional: rum flavouring (1 drop)

## Preparation:

Bring water to boil. Mix the low-fat cocoa powder and cinnamon into the boiling water in a tall mixing bowl and let simmer for 3 minutes.

Peel the banana and add to the cocoa. Blend thoroughly with a hand blender for 1 min (if a hand blender is not available, mash the banana with a fork in a shallow bowl, and then use a whisk to mix the cocoa and the banana in the mixing bowl).

Now taste and sweeten with a pinch of sugar, only if needed.



Photo: © Christian Rupp

Cover and let chill in the fridge for approx ½ hour and eat cold.

**Preparation time:** 10 minutes

**Level of difficulty:** Easy

## Expert tip:

### Not enough chocolate? Not creamy enough?

Add 1 tsp MCT margarine and chocolate baking flavouring to the recipe if you want an even greater chocolate effect.

# Chocolate banana ice cream

for 1 large serving or 2 small gourmet servings

## Ingredients:

120 g ripe banana (pulp of 1 banana)  
15 g low-fat cocoa powder (2 heaping tbsp)  
40 g boiling water (4 tbsp)  
1 pinch of cinnamon  
Optional: rum flavouring (1 drop)

## For firmer, stable ice cream additionally:

1 tsp ground gelatine  
2 tbsp cold water (20 g)

This is **the first** preparation step:

Mix the gelatine with water and let stand for 5 minutes.  
Then stir into the mixed cocoa.

## Preparation:

Peel the banana and cut into slices. Freeze in a plastic container for approx 4 hours. If you are making several layers, use a sheet of baking paper to keep the banana slices from sticking together.

Bring water to boil. Mix the low-fat cocoa powder and

cinnamon into the boiling water in a tall mixing bowl, and let simmer for 3 minutes.

Add the banana and blend thoroughly with a hand blender for 1 min. Now taste and sweeten with a pinch of sugar, only if needed.

**Preparation time:** 10 minutes

**Level of difficulty:** Easy

## Expert tip:

If you want to use vegetable agaritine instead of gelatine, boil 1 tsp agaritine with 2 tbsp water for 1 minute, then stir in cocoa powder and continue with preparation step 2.

## Not enough chocolate? Not creamy enough?

Add 1 tsp MCT margarine and chocolate baking flavour to the recipe if you want an even greater chocolate effect.

## ● 5. Enjoyably **easier to digest**

People with FCS are more likely to experience digestive problems with high triglyceride levels. High triglyceride levels also affect blood flow to the digestive tract.

It is especially important for you to understand the **workings of your digestive factory**. Our contemporary diet is not conducive for an efficient digestive performance. With a few small changes you can support your digestive system efficiently and avoid problems.

### **a. Make up your mind: work or digest?**

Our body works on two levels. The sympathetic nervous system, which is predominantly active, known as our "**action mode**". The brain and working muscles

are well supplied with blood. Or the counterpart, the parasympathetic nervous system, which is working at full speed when we are in a **state of rest**, i.e. in **recovery mode**. This is our relaxation system, where the digestive tract is well supplied with blood and can work to the fullest.

If you are active and at full muscular speed, there are fewer energy resources in your digestive system. Anything you eat or drink during exercise becomes a hard-to-digest burden for our digestive organs. This is the reason why you are much more likely to experience digestive problems or react incompatibly during physical exercise.

## How can I support my digestive system?

There are many ways to support your digestive system. Start with the following exercise and experience how easy it is to switch on your digestive system:

### **“Switching on your digestive system” exercise**

With this short activation exercise you will learn how easily you can put your digestion into operation. Get comfortably seated and relax.

Start: Reflect!

What is your favourite food at this very moment?

Remember the place and situation where you had it last time. Think of the food in front of you, smell it and take a bite. Remember how it tastes. Close your eyes to imagine the dish even better.

What did the exercise trigger in you?

You will find the answer on the right...

### **Answer to the “Switching on the digestive system” exercise**

Can you feel what happened?

Perhaps you have worked up an appetite. And you should now have produced plenty of saliva in your mouth. Your mouth is watering. We have thus introduced the “cephalic phase”, the digestive preparation phase.

Enjoy your food with all your senses. The very thought makes our mouths water. This is proof that the digestive system is now working at full speed for you. If you feel a flow of saliva, other digestive juices and enzymes are also being produced in the digestive organs. Everything you now eat will be better tolerated.

You can also support your digestive system by concentrating on your food when you eat. Chew it well, because well-chewed food is half digested. Sit down and take your time eating. Eating on the go, while walking or during exercise is a hard “shot” for your body.



## b. Being on the right track with indigestion

You have already learned about one essential requirement. Before considering any of the following options, please check these essential points:

- I take my time to eat
- I eat slowly and calmly
- I chew my food well
- I finish the meal when I am full and do not eat any more
- I eat breakfast, lunch and dinner regularly
- Best tolerated: I spread my meals over 4–5 times a day with deliberate snacks in the morning and afternoon

### **Are you a fast eater?**

Fast personalities also tend to eat fast 😊! The following trick will make it easier for you to manage eating slowly. Drink a **glass of water** before the meal. This fills the stomach and the first stretching stimuli on the stomach wall signal satiety to the brain. A decelerated eating behaviour is now more likely to succeed.

## Do you have indigestion despite an enjoyable, mindful eating style?

A dietary history by a nutritionist can help you find the causes.

The following causes could be present and need to be investigated:

- Too much fat / MCT fat each meal or in total during the day
- Too much fibre due to too many whole grains, vegetables, fruits, legumes
- Too much consumption of sugar substitutes (sugar alcohols) such as sorbitol, xylitol, mannitol e.g., via low-sugar products, sugar-free chewing gum or sweets etc.
- Too much coffee, caffeine or alcohol
- Meals that are too big
- Too many carbonated drinks

# 6. Drinking management while living with FCS

Nothing “works” without water, because your **body consists up to 55–65 % of water**. In this section you will find interesting facts about optimal fluid

management and enjoyable drinking ideas. You will also find delicious alternatives to alcoholic drinks that your guests might also like.

Imagine: The average water content of our muscles is 75 %, our brain is 74 % and our skin is 72 %. Doesn't that make you thirsty?

**Adequate hydration** promotes your **physical and mental** performance.

## How much fluid do we need daily?

We should drink 30 ml of fluid per kilogram of body weight per day.

Examples for your personal water needs:

50 kg = 1.5 l

75 kg = 2.25 l

100 kg = 3 l

Numerous people - regardless of age - drink too little and thus risk dehydration.

## Warning signs of a lack of water

Studies have shown numerous consequences of dehydration:

- feeling thirsty, dry skin or mucous membranes
- fatigue
- dizziness
- tiredness
- weakness
- muscle cramps
- reduced muscle strength
- headaches
- increased feeling of hunger
- lower attention span
- reduced cognitive (mental) performance
- anger

How can you tell if you are drinking enough?

Your urine is a simple indication of your fluid balance. The following verses will provide you with a practical way to check your drinking situation:

”

When your urine is dark and there is only a little,  
there is not enough water in the puddle.

.....

But if you drink a lot, your urine will be abundant  
and appear yellowish-white in the pot.

.....

If you ever drink excessively,  
your urine will have a water-like consistency.

“

You have a water burnout? Get inspired by our variety of beverage ideas!

- a. Infused water**
- b. Ideas for greater enjoyment with less sugar**
- c. Homemade iced tea**
- d. Non-alcoholic drinks & cocktails**

### **a. Infused water**

Is tap water too boring for you? Fill up with refreshing varieties in harmony with the seasons. In addition to drinking water, soda or mineral water can also be used as the basis for these drinks for sparkling times. Alternate as you like! Mix any untreated fresh herbs, fruits, vegetables or even spices into your drink!

### **Cinnamon bark & other dry spices**

For some ingredients, you can speed up the flavouring process by pressing the leaves a little or by scoring twigs, cinnamon bark and other dry spices. This allows the essential oils to permeate the water more quickly. Cinnamon bark and dry spices can also be infused with a little boiling water at the beginning. Then pour over cold water and add the rest of the ingredients as desired. After finishing the drink, the cinnamon bark can be rinsed off, dried and reused.



## Year-round inspiration:

Either use only one ingredient or combine fruits with herbs, for example.

### Fruits / Vegetables:

- cucumber
- apple
- lemon
- orange
- lime
- ginger

### Herbs:

- basil
- mint
- rosemary
- thyme
- lemon balm
- camphor wormwood (southernwood)  
*it actually smells and tastes like coke!*



Photo: © Foto Hofer

### Spring:

- strawberry – mint
- elderflower – lemon
- woodruff (press on leaves – large quantities deliver a lot of coumarin, which can cause headaches)
- camphor wormwood – lemon

### Summer:

- lavender – lemon
- peach – lime – rosemary
- watermelon – cucumber – mint
- raspberry – thyme
- pineapple – coconut water or coconut chips (1 tsp)

### Autumn:

- solo ginger, often drunk as warm ginger tea
- apple and cinnamon stick (+ lemon)
- rosemary - orange

### Winter:

- solo cinnamon stick, also enjoyed warm as cinnamon tea
- apple – cinnamon stick – lemon
- orange – ginger
- pear – clove

## b. Ideas for greater enjoyment with less sugar

Ideally, you should avoid sweeteners in your drinks and enjoy it naturally. But if you do feel like sweetening, be sparing and dilute the drink a lot.

### Sweet threshold tuning

Less sweetening is more! How can you successfully curb your sweet tooth?

Before sweetening your drink such as tea or coffee, use the following trick: first take a sip of water. Then take a sip of tea or coffee unsweetened and only then sweeten with half the amount you were used to before.

This focuses your sense of taste on maximum perception and you will find the smaller amount of sweetener pleasant. By the way, you can also use this trick when salting!

## c. Homemade iced tea

Iced tea can of course also be consumed warm or hot! As a tea base, use bags or open tea products and make a cup of tea as usual. However, you can also prepare an infusion from spices, ginger or herbs — only by infusing them with boiling water. Combine as you like from the groups of teas, spices, herbs, fruits or other seasonings, and surprise your loved ones once in a while with these delicious refreshments.



### Tea varieties:

- black tea
- green tea
- rooibos tea
- fruit tea
- peppermint tea or other herbal teas to taste

### Spices:

- cinnamon stick
- clove
- cardamom

### Herbs:

- rosemary
- basil
- sage

### Fruits:

- ginger
- citrus fruits
- apple
- pear
- melon
- peach
- raspberries
- mango

### 4 compositions to start the gourmet journey:

- green tea – lemon – apple
- fruit tea – orange – cinnamon stick
- boiling water – rosemary – orange – ginger
- black tea – peach – lemon

There are no limits to your imagination. Try it out according to your heart's delight.

## d. Non-alcoholic drinks & cocktails

**Alcohol can increase triglyceride levels and should therefore be avoided by people with FCS at any age.**

That is why you should find attractive alternatives here to make special occasions or the next invitation more enjoyable. In the meantime, numerous alcohol-free products are already commercially available and the variety is increasing:

- alcohol-free wine
- non-alcoholic beer
- non-alcoholic spirits

There are many other creative options for inexpensive non-alcoholic drinks. Non-alcoholic drinks and cocktails do not always have to taste sweet either. Two essential ingredients form the creative basis for numerous non-alcoholic alternative drinks:

**Verjus**

**Rum flavouring**

**Verjus**

Verjus is an ideal base for refreshing non-alcoholic drinks. Verjus (French for "green juice") is an ancient condiment that has faded into obscurity and is used as a leavening acid alternatively to vinegar, wine or lemon. It is made from unripe (green) grapes. Verjus is milder than vinegar, finer than lemon and provides a high proportion of flavour-enhancing tartaric and malic acid. The polyphenol content is also far higher than that of red wine and makes this drink an extremely healthy drink for our blood vessels. These ingredients cause an astringent effect and a bitter-tart taste, which makes verjus the perfect substitute for alcohol. Verjus is also very low in calories and sugar, as it provides 19 kcal and only 2 g sugar per 100 ml. Verjus has a strong taste and is therefore usually enjoyed when its very diluted. Unripe grape juice is also easily tolerated by people with histamine intolerance.

## Non-alcoholic white wine spritzer

Prepare a refreshing and non-alcoholic white wine spritzer, either from a commercially available non-alcoholic white wine or mix a small amount of verjus with soda. You can splash on more or less soda to taste.

### Ingredients:

1/8 l non-alcoholic white wine

1/8 l soda

or

20 ml verjus (1 shot glass)

200 ml soda



Photo: © Coral222 – www.istockphoto.com

## Rum flavouring

Rum flavouring is a well-known ingredient for making confectionery and baked goods. Rum flavouring is available at a reasonable price in every supermarket in the baking section.

Tea with rum is quite popular and a good application for rum flavouring. All classic non-alcoholic drinks or cocktails can be made without much effort, by combining verjus with rum flavouring.

## Alcohol-free "Edinburgh" rum

You can "recreate" alcohol-free rum yourself with the following recipe.

### Ingredients:

20 ml verjus (1 shot glass)

1–3 drops of rum flavouring, depending on the manufacturer and intensity of the flavour

Fancy some home-brewed gin, with no alcohol at all? Why not try out the following recipe? Non-alcoholic gin is now also available for purchase, but at similar prices to it's alcoholic cousins.

## "Jim" (non-alcoholic "Edinburgh" gin) or "Jim Tonic"

You can "recreate" alcohol-free gin yourself with the following recipe.

### Ingredients:

½ l verjus  
35 g juniper berries

### Preparation:

1. Grind juniper berries in a food processor or with a mortar, and put them into a cream dispenser (stainless steel)
2. Pour in the verjus and close the cream dispenser.  
DO NOT SHAKE!

3. Gas the cream with a nitrogen cartridge and let it stand for 10 minutes. Now SLOWLY release the gas from the STANDING bottle by gently pressing the lever. This will cause all the nitrogen to escape from the bottle. Now remove the empty nitrogen cartridge, and gas it with a second nitrogen cartridge. Allow to act for 10 minutes. Slowly release the gas from the bottle again by gently pressing the lever
4. Open the cream dispenser and pour the "Jim" into a bottle with a funnel using a coffee filter or fine sieve
5. Store in the refrigerator and consume within 3 weeks



Photo: © Chris Rupp www.chilistylez.com



Whether Caipirinha, gin and tonic or others, there are good solutions for all drinks with very similar taste that can be recreated, and with significantly fewer calories!

## From Hugo to “Hugolino” à la Edburg Edlinger:

A **classic Hugo** consists of 150 ml sparkling wine, 20 ml elderflower syrup, 1 shot of soda, a few ice cubes and fresh mint leaves as well as a slice of lemon or lime. This drink provides **180 kcal, 21 g sugar** and **13 g alcohol**.

For the **Hugolino à la Edburg Edlinger** use 150 ml soda, 20 ml elderflower syrup, 20 ml verjus as well as ice cubes, mint and a slice of lime. This non-alcoholic creation contains only **60 kcal** and **14 g sugar**.

**3 x Hugolino = 1 x Hugo = 180 kcal**

So, 3 Hugolinos have the same amount of energy as 1 classic Hugo!

## Hugolino

for 1 drink

### Ingredients:

- 20 ml verjus (1 shot glass)
- 2 cl elderflower sugar-free syrup (20 ml)
- 15 cl soda (150 ml)
- 6 mint leaves (or 1 sprig)
- 1 slice of lime
- 3 ice cubes

### Decoration:

- 1 slice of lemon

### Preparation:

Pour elderflower syrup, verjus and soda into a glass. Then add either mint leaves or a sprig of mint. Finish with a slice of lime. Cut a second slice of lime for decoration and place it on the rim of the glass. Finally, add 3 ice cubes and enjoy!

The ideal glass for the Hugolino is a white wine glass or a cocktail glass.



Photo: © Michael Wibmer



# Jim Tonic

for 1 drink

## Ingredients:

10 ml "Jim" (½ shot glass)  
3 cl sugar-free tonic (30 ml)  
5 cl soda (50 ml)

## Garnish:

1 slice of cucumber  
4 ice cubes  
Optional: 1 sprig of rosemary

## Preparation:

Pour "Jim" tonic and soda into a glass. Cut a cucumber slice for decoration and place on the rim of the glass. Finally, add 3 ice cubes and enjoy. For a tarter flavour, increase the amount of "Jim" to 20 ml. In the picture you can see a juniper sprig and juniper berries used as garnish. You can use a sprig of rosemary as additional decoration.

The ideal glass for the Jim Tonic is a short drink glass.



Photo: © Michael Wibmer

# Caipirinha

The Caipirinha is more of an appetite-stimulating aperitif than a voluminous thirst quencher.

## For 1 drink

### Ingredients:

- ½ lime
- 1 TL brown erythritol sugar  
(Sukrin gold®, Xucker Bronx® etc.)
- 20 ml verjus (1 shot glass)
- ⅓ glass crushed ice
- 1–3 drops of rum flavouring

### Garnish:

- 1 sprig of mint

### Preparation:

Thoroughly mix the juice of half a lime, verjus and rum flavouring with half of the erythritol sugar in a glass. Then fill up with crushed ice. Now cut the half lime into smaller pieces (e.g., eighths) and then sprinkle the remaining erythritol sugar on top. Garnish with a small sprig of mint directly in the glass.

The ideal glass for the Caipirinha is a short drink glass.



Photo: © Michael Wibmer

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**[www.fhchol.at](http://www.fhchol.at)**

**[info@fhchol.at](mailto:info@fhchol.at)**



**Swedish Orphan Biovitrum AB**

SE-112 76 Stockholm

**[info@sobi.com](mailto:info@sobi.com)**





Swedish Orphan Biovitrum AB  
SE-112 76 Stockholm  
[info@sobi.com](mailto:info@sobi.com)

