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We are Wageningen University's iGEM Team 2022! A group of masters students of mixed backgrounds and studies, participating in this year's iGEM competition. This is an international competition for synthetic biology, organized by MIT. Teams from all over the world try to solve social problems, using synthetic biology. Every year a huge variety of projects are developed, ranging from breaking down plastic with bacteria to contributing to the fight against ALS.

This year, we will be fighting colorectal cancer. Colorectal cancer is one of the most common cancers in the Western world. Therefore, all over the world, large nationwide screening programs have been organized, including in the Netherlands. However, these screenings are not reliable: they depend on participants sending in samples themselves, the test is only performed once every two years, and early tumours are often not properly diagnosed. In addition, there is a high rate of false positive tests, resulting in many unnecessary colonoscopies. So, these call for a better and more effective approach!

This is where our project called Colourectal comes in. We are developing a bacterium that can recognize tumour formation at an early stage in the form of a simple self-test. The bacteria will detect cancer and warn the user by changing the colour of their stool. This alerts the user and allows effective follow-up steps to be taken!





We are Foundation BalanceBuddy Wageningen! We are committed to helping families who want to work on a healthy lifestyle with their children. 'Working on health together' is the goal of our foundation. By means of tailor-made help, we help children who are dealing with problems related to exercise, nutrition and health. We do this by training Wageningen students to become lifestyle buddies and pairing them with a family that has joined us. We strive for a structural and affordable change in the lifestyle of our participants so that together we can prevent obesity. That is why participation for families and buddies is completely free of charge!

Our buddies are often students with relevant health backgrounds. They visit families once a week to guide the family to a healthier life. This can be done by exercising with the kids or educating the parents about healthy habits. The focus is on respect and listening to the needs of the family. To support the buddies there are regular educational meetings to increase their knowledge about a healthy lifestyle and how to communicate this. There is not only the aspect of nutrition and exercise but also other aspects in order to help the families as much as possible. This is what makes BalanceBuddy so special!

We believe that every child deserves an equal chance at a healthy life, independent of financial resources. In addition, you can learn a lot from each other, and cooperation is so beautiful to see. Hence, our goal reads: 'Working on health together', focusing on mental as well as physical health. Meanwhile, we are already doing this in three different cities, namely Utrecht, The Hague, and Wageningen, and in the future, we hope to expand even further!



To create the best cookbook possible, we first looked at what should really be in our dishes to ensure that the risk of colon cancer remains as low as possible. To do this we talked to Dr. Dieuwertje Kok.





Dieuwertje is a medical biologist with a keen interest in nutrition and cancer. She works with colleagues on this topic within the Nutrition and Disease research group at Wageningen University. Kampman is chair holder of Nutrition and Disease: she leads the research group and has over 35 years of experience in research on nutrition and cancer. Both are specifically interested in colon cancer and thus know a lot about the environmental factors that can decrease your risk of colon cancer as much as possible!

First, fiber is important! These ensure good and healthy bowel movements. This allows the stool to pass smoothly through the intestines leading to less exposure to harmful substances. So, replace your white bread and rice with the whole grain type, these contain much more fiber! In addition, fiber is found in vegetables, legumes, and many fruits such as bananas and blueberries. Be sure not to leave these out, and grab your two pieces of fruit a day. Dairy also has a positive effect because the calcium in dairy binds to toxic substances, which therefore cannot cause cancer! There are also food products that can have negative effects. Red meat and especially processed meat play a major role here. Red meat contains hemoglobin, which can irritate intestinal cells. Processed meat also contains a range of substances that can be irritating to the intestines.

Also, be sure not to forget fruits and vegetables, which are very important sources of dietary fiber. It is recommended to take at least 250 grams of vegetables and two pieces of fruit daily. This can be done very easily by choosing vegetable products at every meal and taking a handful of fruits and vegetables, such as candy cucumbers, cherry tomatoes, grapes, strawberries, and raspberries, in between meals. There are also food products that are associated with an increased risk of colon cancer. These are particularly red meat and processed meat. Therefore, the advice is to eat no more than 350-500 grams of red meat per week: this includes beef, pork, and lamb, for example. For processed meat, such as cold cuts, salami, various types of sausages, and hamburgers, it is better not to take it at all. The same goes for alcohol: alcohol can increase the risk of various cancers, including colon cancer. So drink this in moderation.

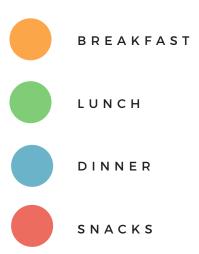
If you eat according to the Voedingscentrum's diet chart, it is possible to work with all the tips and advice given here. In addition, it is important to exercise enough and strive for a healthy weight.



Colourectal and Balance Buddy are both committed to good health for everyone! Therefore, with the help of Dr. Kok, we wrote this cookbook together. We have gathered recipes that can help prevent colorectal cancer. These are affordable and easy to prepare. This way, we want to make it possible for as many people as possible, to take good care of your intestines!

We have selected recipes for the four most important eating moments of the day: breakfast, lunch, dinner, and a snack. Therefore, there is always a recipe to try! With each dish it is indicated for how many people it is intended for, you can easily multiply the ingredient amounts when you eat with more people! All recipes are made with affordable ingredients because healthy food does not need to be expensive!

In addition to delicious recipes, we have also added some interesting pieces, such as interviews and informative stories.





BANANA PANCAKES

INGREDIENTS

1 large banana, peeled and cut into pieces
2 eggs
¼ tsp ground cinnamon
¼ tsp baking powder
Sunflower oil for baking
Greek yogurt (0% fat)
Small bowl of blueberries



- Place the banana pieces in a mixing bowl and mash until smooth with a fork.
- Add the eggs and stir into a batter with a fork. Then add the baking powder and mix well.
- Add oil to a skillet and heat the pan. Put a tablespoon of batter in the pan. About 3-4 pancakes will fit in the pan at a time. Keep enough space between the pancakes.
- Bake them for 2-3 minutes until golden brown, carefully flip them and bake for another 2-3 minutes. Repeat until the batter is gone.
- Divide the pancakes between two plates and serve with a tablespoon of Greek yogurt and berries.





OVERNIGHT OATS

INGREDIENTS

30 gr oatmeal (coarse or fine)
60 ml milk
60 gr Greek yogurt (0% fat)
1 tbsp mixed seeds (e.g. flax seeds or chia seeds)
1 piece of fruit of your choice
1 tbsp unsalted nuts
Honey or maple syrup to taste
Flavour of your choice
(e.g. cinnamon, grated

coconut or cocoa powder)



- Start the night before you want to eat overnight oats:
- Stir together the oatmeal, milk, yogurt, honey, flavouring and seeds in a small bowl. Cover and put in the refrigerator.
- The next morning, stir everything again and add fruit and nuts.
- Tip: Do you think the oats are too thick? Then add a little more milk or use fine oats next time. Too thin? Next time use less milk or use coarse oats.

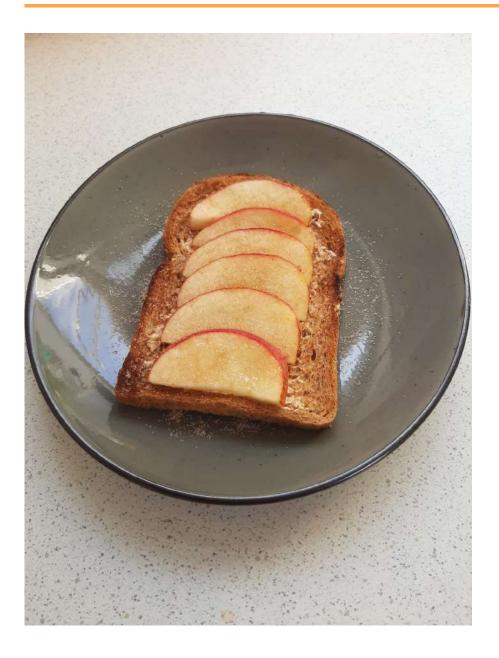
YOGURT WITH APPLE AND CINNAMON



INGREDIENTS
150 gr Greek yogurt
(0% fat)
1 apple
Pinch of cinnamon
Optionally: raisins or
unsalted nuts

- Cut the apple in half and remove the core. Cut the apple into small cubes.
- Put the yogurt in a bowl and add the apple and cinnamon.
- Add raisins or unsalted nuts if desired.





APPLE CINNAMON TOAST



INGREDIENTS

1 apple
1 tsp granulated sugar
2 tsp brown sugar
½ tsp cinnamon powder
4 thick slices of dark wholegrain bread bit of low-fat margarine

- Cut the apple in half. Remove the core of the apple. Place the apple halves face down and then divide each half into slices. While doing so, keep the slices together.
- Place the sliced apple halves on a plate. Sprinkle the granulated sugar over the apple halves and loosely cover the plate with baking paper.
- Place the plate in the microwave and heat the apple for about 45 seconds.
- Then remove the apple from the microwave and leave it covered for another 5 minutes. Remove the baking paper and let the apple cool.
- Meanwhile, mix the brown sugar and cinnamon in a small bowl.
- Toast the bread. Brush the slices with some low-fat margarine and sprinkle the sugar-cinnamon mixture on top.
 Top the bread with the apple slices.

PANCAKES WITH RED FRUIT



INGREDIENTS
115 gr whole wheat flour
1/2 tsp baking powder
1 egg
210 ml semi-skimmed milk
1 tbsp olive oil
160 gr of red fruit (of
your choice)

- Place the whole wheat flour and baking powder in a bowl.
 Make a well in the center with a spoon.
- Break the egg over the dimple and mix in. Then slowly add the milk while mixing. Mix until a smooth mixture is formed.
- Heat a skillet over medium-high heat and add the olive oil to the pan. Put a tablespoon of batter in the pan. You can bake several pancakes at a time.
- Bake the pancakes for about 1 minute, until they are golden brown. Then flip the pancakes and bake this side for 1 minute as well.
- Repeat until you run out of pancake batter. Serve the pancakes with the red fruits.



Eating is a big part of daily life. For example, breakfast, lunch and dinner are the three most important eating times of the day. If you add this up, this is 1095 meals a year, not even counting all the snacks! This may sound like a lot, but we need all this food. It gives you the energy that you need every day! But what is actually in all this food that gives you energy? That all has to do with macronutrients. These are nutrients that serve as fuel for the body. Without this fuel, the body cannot function.

Nutrition consists of three macronutrients, namely proteins, carbohydrates, and fats. On this page, we briefly explain to you what these macronutrients mean.

Proteins

Proteins provide a lot of energy and provide the most satiety, compared to carbohydrates and fats. Proteins provide 4 kilocalories of energy per 1 gram. A kilocalorie is a measure of the amount of energy in food. Using this, you can make a comparison of the amount of energy in different foods. Adults need an average of 0.83 grams of protein per kilogram of body weight. For someone weighing 70 kilograms, this equals an amount of 58 grams of protein per day. Some groups of people need more protein, such as sick people, professional athletes, pregnant women, growing children, vegetarians, and vegans. For people with cancer, it is recommended to consume 1.5–1.7 grams of protein per kilogram of body weight.

Proteins are found in plant and animal products. Important vegetable protein sources are legumes (e.g., chickpeas, lentils, and kidney beans), tofu, tempeh, and nuts. Major animal protein sources are meat, fish, poultry (e.g., chicken), dairy products, cheese, and eggs.

Carbohydrates

Carbohydrates are the second type of macronutrient important to the human body. Like protein, carbohydrates contain 4 kilocalories of energy per gram. Despite providing the same amount of energy, you need more carbohydrates per day than proteins. About 40-70% of all calories should come from carbohydrates. This is partly because our brain gets energy mainly from carbohydrates.

Many products contain carbohydrates but not all carbohydrates have positive effects on your body. Therefore, we distinguish between good and bad types of carbohydrates. Good types of carbohydrates are mainly found in whole grain bread and whole grain cereals, fruits, legumes and different types of vegetables. Bad kinds of carbohydrates "sugars" are mainly found in processed products such as soft drinks, candy, sweetened dairy products and most snacks (e.g., cookies).

Fats

Fats are the third and final category of the most important macronutrients for the body. Compared to proteins and carbohydrates, fats contain more energy per gram, at 9 kilocalories per gram of fat. Fat is often seen as something bad, but this is not entirely true. Your body needs fat for several reasons. Among other things, it protects your cells from invaders, it protects your organs from the cold, it allows your body to function properly, and it provides certain vitamins. Therefore, it is important to uptake fat as well as protein and carbohydrates. Up to 40% of all the calories you eat in a day should come from fats.

Saturated and unsaturated fat are the best-known types of fats, of which it is advised to replace saturated fat with unsaturated fat as much as possible. Saturated fat is mainly found in fatty meat, whole milk products and butter (processed in cookies and cakes). Good fats, unsaturated fats, can be found in vegetable oils and products made from them, such as olive oil and low-fat margarine. In addition, unsaturated fats can also be found in fatty fish (salmon and herring), avocado and nuts.

Colorectal cancer is a form of cancer that develops in the (large) intestines. But what is cancer exactly? With cancer, the cells in your body do not divide as usual. They, in fact, divide too quickly, resulting in the formation of accumulation, called tumour or cancer. In colorectal cancer, a developing tumour is called a polyp. Polyps are common in the intestines, especially at a later age. Most of the time, these are benign, but in about 5% of the cases, the polyp develops into colorectal cancer. This could take up to 15 years.

Every year, about 12.000 people are diagnosed with colorectal cancer, and almost 5.000 die of this disease. The older you get, the higher the chance of developing colorectal cancer. Additionally, people with a family history of colorectal cancer have an increased risk. You cannot do much about your age and family history, but there are also risk factors that you can influence. Smoking, an unhealthy diet, being overweight, and too little exercise increase the risk of colorectal cancer. Try to avoid these factors as much as possible!

A tumour in the intestines could cause different complaints. For example, blood or slime in the feces, but also a change in your stool and/or constipation. It could also be that you have no complaints at all, meaning that you have colorectal cancer without noticing it. This is what makes colorectal cancer a difficult disease and therefore early diagnosis is crucial. To ensure people get diagnosed at an early stage, the Netherlands organized a screening program for colorectal cancer. Everyone aged between 55 and 75 gets invited to participate. You have to send a stool sample, which will be assessed in the lab for the presence of blood. If blood is found in your stool, your intestines will be examined with a colonoscopy.



Bronnen: RIVM, MaagLeverDarm Stichting, Kanker.nl

*If you experience these complaints, refer to your GP.

Do not rely solely on this information.



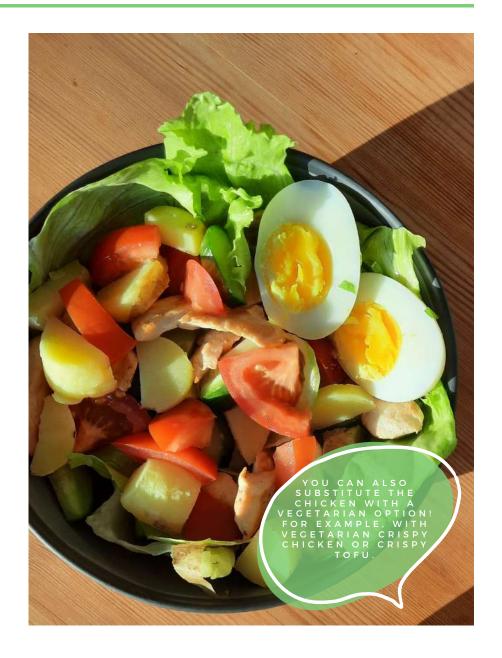
CAESAR SALAD



INGREDIENTS

400 gr baby potatoes 200 gr iceberg lettuce, sliced into strips 100 gr chicken, sliced into strips 2 hard-boiled eggs, sliced 2 tomatoes, diced 1/2 cucumber, diced 1/2 tbsp olive oil 1 tbsp extra virgin olive oil Juice of half a lemon 1 tsp mustard 2 tbsp parmesan cheese shavings

- Heat ½ tsp olive oil in a skillet and cook the chicken for about 10 minutes until tender. Let cool.
- Cook the potatoes with skin until tender in about 10 minutes.
 Let cool.
- Mix the vegetables with the chicken and potatoes in a large salad bowl.
- Put the extra virgin olive oil, lemon juice and mustard in a small bowl and whisk to make a dressing. Pour the dressing over the salad.
- Divide the salad between two plates. Place a boiled egg on each plate and sprinkle the parmesan cheese on top.





PUMPKIN-COURGETTE SOUP

INGREDIENTS

1 pumpkin/squash
2 courgettes
1 onion
2 garlic cloves
About 4 cm of ginger root
Vegetable oil
1 stock cube
1 tbsp curry powder
½ tsp paprika powder
Pinch of chili powder
70 ml cooking cream (7% fat)
Salt and pepper to taste



- Peel or wash the squash and remove the seeds (you can fry them in oil until crispy for a tasty addition to the soup!) and cut them into chunks. Wash the courgette, remove the ends and cut it into coarse pieces as well.
- Peel the onion and garlic cloves and chop coarsely. Peel the ginger root and chop it finely.
- Heat the oil in a large pan and sauté the onion, garlic, and ginger for a few minutes. Add the squash and courgettes and cook for a few minutes. Add the curry and chili powder and heat briefly.
- Add about a liter of water together with the bouillon cube.
 Turn down the heat and simmer gently for about 20 minutes, until the vegetables are soft.
- Use the hand blender to puree the soup, add the cooking cream, and season with pepper and salt.

FRIED EGG WITH VEGETABLES AND WHOLE WHEAT BREAD



INGREDIENTS

1 bell pepper
1 courgette
400 gr of mushrooms
Spicy humus
4 eggs
4 slices of whole wheat
bread
Italian herbs
Pepper and salt

- Dice the vegetables.
- Heat a tablespoon of olive oil in a frying pan and fry the vegetables until soft. Season the vegetables with salt, pepper and Italian herbs. Place the vegetables in a bowl and set aside.
- Fry the eggs in the same skillet without breaking the yolk.
- Spread the slices of bread with a layer of humus. Place the egg on top and spread the vegetables next to or on the bread

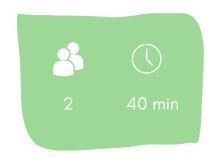




ITALIAN TOMATO SOUP (PAPPA AL POMODORO)

INGREDIENTS

250 gr whole wheat bread
½ carrot
½ celery stem
½ red onion
750 gr tomato puree
Salt and pepper
1 garlic clove
Basil



- Cut the bread into pieces and soak it in cold water.
- Finely chop the onion, carrot, and celery and fry them golden brown in a saucepan.
- When the vegetables are soft, add the tomato paste and simmer over low heat with a lid for 15 minutes.
- Squeeze the bread to dry it and crumble it onto the tomato sauce. Stir well.
- Let the soup cook for 10 minutes on low heat.
- Squeeze the garlic clove and add to the soup along with basil leaves.
- Season to taste with salt and pepper.

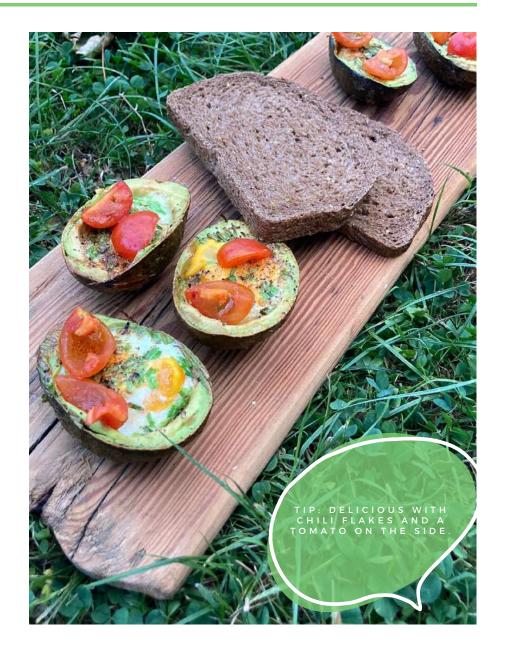
STUFFED AVOCADO FROM THE OVEN



INGREDIENTS

1 ripe avocado2 medium eggs2 slices whole wheat breadHandful of fresh chives, finely choppedBlack pepper to taste

- Preheat the oven to 220°C and line a baking sheet with baking paper.
- Cut the avocado in half and carefully remove the stone (leave the skin on). Scoop out a little of the flesh to make a larger hole (and eat this :)!).
- Break an egg over each avocado half. Sprinkle with fresh chives and pepper.
- Place the avocado halves on the baking sheet and bake for about 10 minutes in the preheated oven until the eggs are cooked. Serve each avocado half with a slice of whole wheat bread.





VEGETABLE WRAPS WITH GUACAMOLE AND TOMATO SALSA

INGREDIENTS

4 whole wheat tortillas
2 courgettes, diced
8 mushrooms, sliced
1 red bell pepper, strips
1 green bell pepper, strips
1 red onion, finely chopped
2 cloves of garlic
2 tbsp low-fat yogurt
1 pinch chili powder

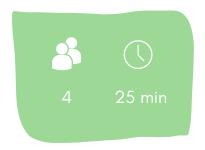
For the guacamole:

1 pinch of oregano

½ avocado2 tsp lime or lemon juice

For the salsa:

8 cherry tomatoes, quartered 2 spring onions, finely chopped Handful of cilantro, chopped



- Remove the skin and stone from the avocado. Mash the flesh with a fork in a bowl. Add lemon juice and pepper and mix well.
- For the salsa, mix the sliced cherry tomatoes, spring onion and cilantro in a bowl
- Heat some oil in a frying pan and sauté the red onion until soft. Add the garlic and courgettes and fry briefly.
- Add the mushrooms, bell pepper, chili powder and oregano.
 Season with pepper and cook the mixture for another 5 minutes.
- Heat the tortillas according to the package.
- Divide the vegetable mixture between the wraps, add the salsa, guacamole and yogurt and fold the wrap.

A cookbook is not a good book if we do not also have some cooking tips! We asked chef Suly for tips. Suly lives in Wageningen and has been a cook for some time. He has made his passion his profession! He also has his own business, De BuurtSjef (www.buurtsjef.nl). As Suly himself says, he specializes mainly in Eastern fusion cuisine. He loves Middle Eastern and Asian flavours and aromas, and he likes to combine them with local and seasonal products. If possible, he likes organically produced products. In addition, he is very sparing with meat, and he challenges himself to cook tasty nutritious (vegetarian) meals.

BalanceBuddy Wageningen has worked with Suly many times before, which was always a great success! For example, we organised a cooking workshop for all the kids with their parents and buddy. Suly put together a delicious poké bowl with a variety of fresh ingredients. Together with their buddy and a parent, the children prepared their own delicious meal. From cooking rice to carving pumpkins and grinding fresh herbs, everything was freshly prepared together. We also set up an evening paella-making activity for all the children of our foundation.



If you are going to be cutting a lot of vegetables, it is nice if you have good sharp knives to do so. You need at least a chef's knife and a potato knife. With these, you can prepare most recipes.

Each vegetable has different characteristics. Some vegetables are hard and firm, like sweet potato, and other vegetables like tomatoes are soft and juicy. If you want to cook all the vegetables on a griddle, for example, you would like them all to be cooked at the same time despite their differences. Here we have a trick for that! Namely, depending on the type of vegetables, we are going to cut them into pieces of different sizes. So, we will have to cut the vegetables that take a little longer to cook, for example carrot, sweet potato, onion, and pumpkin, a little finer than vegetables that cook faster like cauliflower, tomato, broccoli, and courgette. You will have to experiment a bit with that, but that is just the fun of cooking!

If you are going to cook meat, it is important to clean your cutting board well after cutting the meat and before cutting your vegetables. This way you prevent harmful bacteria from getting into your food!

It is nice to have some commonly used spices around the house so you have everything there when you want to prepare a recipe. Tip from me: for spices, go to the Asian supermarket or another oriental store. Often the spices there are much cheaper than in the supermarket!

To save costs, it is useful to cook mainly with seasonal vegetables. Those are usually very cheap at that time, especially at the market. Of course, this is also a much more sustainable option than buying vegetables from the supermarket. This is because nowadays you can buy most vegetables year-round, but they are often grown in a greenhouse or imported from abroad.

As mentioned earlier, Balance Buddy is a foundation that helps children achieve a healthier lifestyle. Therefore, Balance Buddy pairs lifestyle buddies with children who could use help in the areas of nutrition, exercise and health. A buddy is often someone with a relevant background in the field of health. An example of a buddy at BalanceBuddy Wageningen Foundation is Milou Moolhuijzen.



She has been Lorenzo's lifestyle buddy for some time, so she already has a lot of experience! Milou studies Health and Society in Wageningen University. Partly because of her studies, she enjoys volunteering as a buddy. She also enjoys working with children, so this is a perfect match. Milou told us why she enjoys being a lifestyle buddy so much: "I especially enjoy being a buddy at BalanceBuddy, because I notice that the longer I am his buddy, the more self-confidence the child gains. He starts to enjoy sports and being outside again! This is where I get a lot of happiness and joy out of it. I love helping children regain their self-confidence and showing them that sports can also be a lot of fun. I have also learned a lot while being a buddy, so this also contributes to my personal development. For example, we buddies get courses on psychology and giving feedback. For this reason I definitely recommend it to everyone!".





RATATOUILLE WITH WHITE FISH

INGREDIENTS
600 gr of white fish of your choice
500 gr potatoes, sliced
320 gr green beans, ends removed
1 sliced courgette
1 finely chopped red onion
1 diced yellow bell pepper
400 gr of tomato cubes
2 finely chopped garlic cloves
½ tsp oregano
Fresh basil
Black pepper

Olive oil



- Turn the oven on to the grill function and place baking paper on a baking tray. Spread the courgette on the baking tray and bake for 7 minutes in the oven until they are light brown, turning them halfway through.
- Fry the onion and garlic in a pan and add the bell pepper, tomato, and oregano, and let simmer for 4 minutes.
- Line a new baking tray. Wrap the fish in aluminium foil and bake at 180 degrees Celsius for 12-16 minutes.
- Boil the green beans and potatoes for about 10-12 minutes.
- Build the ratatouille in the oven dish with courgette and reheat in the oven if necessary.

GRILLED VEGETABLE PIZZA



INGREDIENTS

1 roll of puff pastry
(whole wheat)
1 courgette in cubes
1 eggplant in cubes
1 red pointed bell pepper
1 red onion
50 gr cherry tomatoes
2 tbsp pine nuts
1 tsp thyme
1 tsp oregano
Olive oil, pepper and salt

- Preheat the oven to 200 degrees Celsius, roll out the puff pastry on a baking tray and fold the edges. Poke holes in the bottom using a fork and bake for 2 minutes.
- Cut the vegetables, fry them briefly in a pan and season with salt and pepper.
- Divide the hummus over the pie and place the grilled vegetables on top. Sprinkle the oregano and thyme over this as well.
- Bake the pizza in the oven for 25 minutes and sprinkle the pine nuts over it for the last 5 minutes.





BULGUR SALAD WITH HALLOUMI

INGREDIENTS

300 gr bulgur
200 gr dried tomatoes
400 gr chickpeas
2 diced bell peppers
1 cucumber in cubes
225 gr halloumi
1 lemon
Fresh mint
1 avocado
150 gr of Greek yogurt 0%
1 tsp ras el hanout spices
Pepper, salt and olive oil



- Cut the vegetables into cubes and cut the halloumi into slices. Bake the halloumi in a pan with some olive oil until brown.
- Then fry the chickpeas with the bell pepper cubes and ras al hanout herbs.
- Make a sauce of Greek yogurt, avocado, mint and lemon to taste.
- Serve everything with the dried tomatoes and cucumber cubes.

NASI GORENG WITH CHICKEN OR SHRIMP



INGREDIENTS **250 gr** of whole grain basmati rice **500 gr** of oriental stirfried vegetables 400 gr of peas 350 gr of chicken breast or **275 gr** of large shrimps 1 finely chopped onion 2 cloves finely chopped garlic sunflower oil 4 eggs spring onions 1 tsp ginger powder 1 tsp turmeric powder 1 tsp hot sauce 1 tsp oyster sauce/fish sauce 1 tsp soy sauce Black pepper

- Cook the rice as stated on the package.
- Start by sautéing the onion and garlic. Then add the chicken or shrimp and fry until cooked.
- Add the oriental stir-fried vegetables and peas. Then add the cooked rice and fry briefly. Add the turmeric, ginger powder, hot sauce, oyster or fish sauce and soy sauce.
- Fry 4 fried eggs, cut the spring onion into fine rings and serve.





MEXICAN BEAN STEW

INGREDIENTS
250 gr of vegetarian
minced meat
200 gr brown rice
400 gr mixed beans
400 gr tomato cubes
200 gr corn
1 bell pepper in cubes
2 finely chopped onion
200 ml water
½ tsp chili powder
½ tsp ground cumin seeds
1 garlic clove
black pepper
sunflower oil



- Cook the rice according to the package
- Heat the oil and fry the onions until they are soft. Add the bell pepper and spices and fry for about 4 minutes.
- Add the vegetarian minced meat, diced tomatoes and corn and stir well. Then add the water and bring to a boil.
- Let simmer on low heat for 20 minutes and add extra water if it becomes too dry.
- Serve with rice.

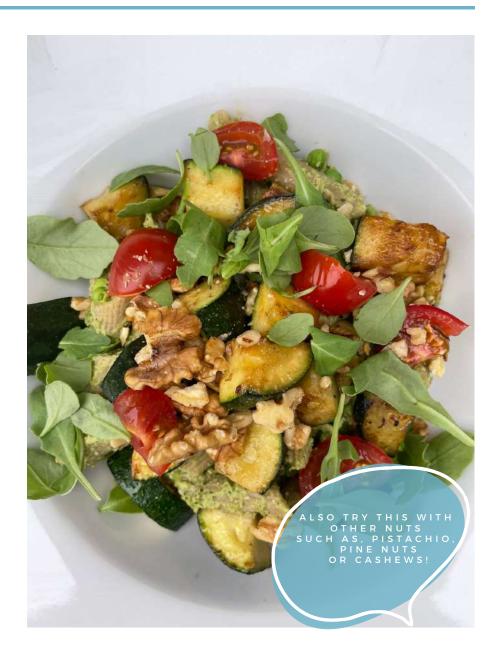
PENNE WITH PEA PESTO



INGREDIENTS

800 gr garden peas
1 courgette in cubes
300 gr whole grain
penne pasta
1 lemon
10 gr fresh mint
85 gr arugula
100 gr unsalted walnuts
3 tbsp olive oil
2 tbsp water

- Cook the penne according to the package.
- Put the peas in a heatproof bowl and add boiling water, leave for 5 minutes. Fry the courgette in a pan.
- Add to a tall cup half of the peas, the mint leaves, half of the arugula, 80 grams of walnuts, oil, lemon juice and water. Puree this with a blender and add mint and water to taste.
- Mix the penne with the pesto and add the peas, courgette, arugula and mint to taste. Season with salt, pepper, lemon juice and the rest of the walnuts.





VEGETARIAN PITA

INGREDIENTS

400 gr chickpeas
3 diced red bell peppers
4 whole wheat pitas
1 cucumber
15 gr fresh dill
3 tbsp olive oil
200 gr Greek Yogurt 0%
2 pressed cloves garlic
1 tbsp ras el hanout



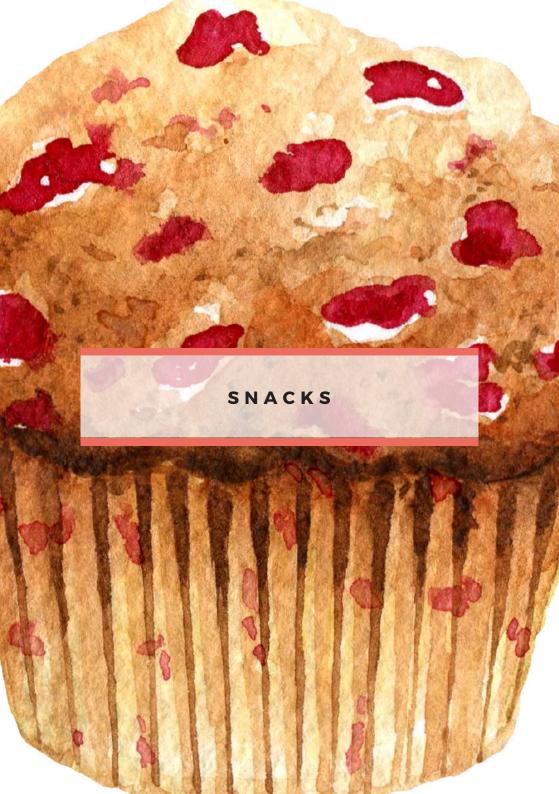
- Heat the oven to 220°C. Halve the cucumber. Cut one half into arcs and cut the other half in half again. Remove the pulp and finely chop the flesh.
- Finely chop the dill and mix the flesh of the cucumber with the yogurt and dill and mix 1 clove of garlic through it and season with pepper. In a separate bowl, mix the cucumber slices with dill and pepper.
- Fry the bell pepper cubes, chickpeas and garlic in a pan and season with ras el hanout.
- Bake the pita breads and serve everything together.

iGEM and BalanceBuddy Wageningen are a project and a foundation in the city of Wageningen. In Wageningen there is also much to do in terms of health, nutrition and nature!

One example is "Wageningen on the Move", a series of exercise routes planned by Wageningen residents. The Sports Council brought together several parties and in 2021 these exercise routes were created throughout Wageningen. This was developed into three routes of different lengths and colours (7, 8 and 12 km) that you can walk, jog, or run. You can recognize the route by the circular signs and stickers in the colour of the route you are following. Along the way, there are a number of places where you can perform fitness exercises. These exercises are based on strength, stability, speed, and/or coordination, set-up by various fitness instructors in Wageningen. Wageningen is a lovely place with lots of nature and beautiful surroundings, so it is highly recommended to make use of these beautiful exercise routes!

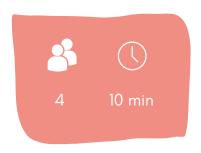
In addition, Stichting de Hoge Born is a care farm in Wageningen. It is near the Wageningen University campus and it is a beautiful place where nature, health and nutrition come together. Besides being a farm, Stichting de Hoge Borne is also day care or occupational therapy for people who need it. Expert guidance is therefore involved. Vegetables and fruits are grown organically on this farm so all products contain an ecological label (SKAL). This ecological label shows that the products are organic, which is good for animals, people and the environment. It is a nice farm to stop by and take a look, there are also guided tours!







FRUIT POPSICLES

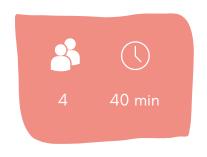


INGREDIENTS

2 small pears, peeled and chopped
¼ lemon
1 tbsp honey
6 tbsp water pinch of ground sea salt
4 popsicle molds

- Puree all ingredients in food processor until smooth. Add additional water to make the mixture smoother.
- Fill popsicle molds with the pear mixture, insert the wooden sticks and let the popsicles harden in the freezer for 4–6 hours.

CRUNCHY CAULIFLOWER SNACKS



INGREDIENTS

5 tbsp mayonnaise
5 tbsp Greek yogurt
1 cauliflower, in florets
2 tsp garlic powder
2 tsp paprika powder
2 tsp dried Italian herbs
2 tbsp sweet chili sauce
1 baking sheet

- Heat the oven to 200 degrees Celsius. In a bowl, mix the mayonnaise, and yogurt through the cauliflower florets.
- Mix the breadcrumbs with the herbs, then dip the cauliflower florets in this and place them on the baking sheet.
- Bake for 30 minutes in the oven, turning them once at the halfway point.





GRANOLA BARS WITH FRUIT

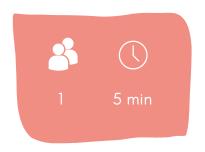


INGREDIENTS

200 gr of oat flakes100 gr of dried fruit50 gr of margarine5 tbsp orange juice3 tbsp honey

- Heat the oven to 180 degrees Celsius.
- Melt the margarine and honey and stir in the remaining ingredients.
- Then cover an oven tray with baking paper and spoon the mixture onto the tray, pressing it down well.
- Bake the plate for 15-20 minutes
- Cut the plate into strips while it is still warm and then let it cool.

GREEN SMOOTHIE



INGREDIENTS

100 gr spinach (or
other leafy vegetable
such as endive, corn
salad or kale)
100 ml skimmed yogurt
50 ml water
1 banana

- Put the spinach, yogurt and water in the blender and blend until smooth.
- Cut the banana into pieces and add it to the smoothie. Blend it well
- Divide the smoothie between two glasses and serve.



This is the end of the cookbook. With 22 recipes and informative pages, we hopefully have been able to offer a lot of varying and tasty recipes. We hope that you have gained a lot of inspiration and enjoyed making the dishes because healthy cooking does not have to be difficult and expensive. And most importantly, we hope you enjoyed all the tasty recipes you made yourself! We would like to thank many people for making this cookbook possible. First, of course, we want to thank you as a reader! We would also like to thank Dieuwertje Kok for checking the cookbook and for the many tips she has given us. We would also like to thank Suly and Milou for their cooperation. Furthermore, we would like to thank the World Cancer Research Fund for the inspiration for our dishes. Finally, we would like to thank the public library of Wageningen for making the library available during the official presentation of the cookbook, and for all the help with this.



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Enjoy!