

BRAIN FOOD RECIPES

7th Grade Nutrition Project





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Recognizing the connections between health and academic achievement as well as the importance of evidence-based school practices, SEK Ciudalcampo partnered with Stephen Heppell, UCJC and Catergest on a project of mutual interest: Establishing healthy eating habits that have a positive effect on learning.

A group of students who were very passionate about the project launched the Brain Food Group and worked on several initiatives to spread the word about healthy eating, specifically by adding 20 "brain foods" to our diets. This recipe book was developed by them so that they could promote healthy eating habits. We hope you enjoy the book!











ABOUT THE PROJECT

Brain Food Project is a collaborative project that includes: In addition to **SEK Ciudalcampo International School Students**

> SEK Ciudalcampo International School Teacher **Kimberly Stein**

> > Creative thinker

Professor Stephen Heppell

UCJC Team

Dr. Farid Mokhtar Noriega **Dr. Juan Carlos Segovia**

Catergest

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THE BRAIN FOODS SHOPPING LIST

Under the leadership of Dr. Juan Carlos Segovia of UCJC and Project NARA the Brain Food Group came up with 20 Brain Foods that were scientifically proven to have a positive effect on the brain and learning. Based on the literature review, which can be found in the appendix, the following foods were coined the "Brain Foods":



- 1. OLIVE OIL
- 2. Coconut Oil
- 3. WILD SALMON
- 4. Berries
- 5. Turmeric
- 6. Eggs
- 7. Nuts
- 8. Asparagus
- 9. KALE
- 10. Broccoli
- 11. Avocado
- 12. Dark Chocolate
- 13. Spinach
- 14. Pumpkin Seeds
- 15. Beetroot
- 16. Celery
- 17. Meat and fish
- 18. Lentils, Beans & Peas
- 19. Citrus Fruits
- 20. Jicama





MEET THE TEAM

This project has helped me and my family alot. Since I told them about my brain food list, my mother and father try to include as many brain foods as they can in our daily meals, because they also think it is very important.

— HANQING WANG





María Rabadán García Hernán I think the brain food project has changed my life for the better. At school, we have a lot of things to do, but being part of this group you can taste alot of new flavours. Before I didn't like salad but now I eat it almost every day!

Before I joined the brain food group, I didn't know that the brain foods existed, but I still ate them without knowing. A lot of our tradidtional recipies contain the foods we studied. — Amaya Sevilla Manso De Zúñiga





María Martínez — Jiménez I think brain foods not only help your body, they also can help with your learning. It's like doing a favor to your body! This project has changed the way I eat. Now I eat things that I would never have dared to try before. It has been a lovely experience!

When I first came here and discovered brainfoods I was shocked and impressed. Girls from first of ESO could take part in something big that will impact all our lives. We had great ideas, some of them were better than what any adult would have ever thought.

ROXANA ROCA PETRATTI





VIOLETA STEIN

Being part of the brain food group has been such a fun experience but it's not just fun; its also very educational. It has changed the way I eat and I love sharing with the world what we do.

I think that the brain food project is a good idea for all of us, because we can all eat good foods, and grow healthier. It's good for your body, so now I make smater decisions about what I eat.

CAMILA SUAREZ SAN JOSÉ



KIMBERLY STEIN

VICE PRINCIPAL
SEK CIUDALCAMPO MADRID



Working with the Brain Food group has been so rewarding for me as an educator and administrator. When we began the project, Stephen Heppell kept saying to me, "Let the kids lead this. What do they want to do?". I have kept that present for the last year and half working with the students.

As teachers, we so often want to take the lead and direct the learning experience. So I really had to stop myself many times from pushing my own agenda. I used this as an authentic opportunity to allow the students to direct their own learning via inquiry. Together we have learned that by studying food and nutrition, we can touch on every discipline.

The possibilities have become endless. Through our explorations, we have done scientific research, made hypotheses, analyzed data, made informative videos, interviewed professionals, created recipes, kept up to date on advancements in nutrition and the latest research, made campaigns about healthy eating, taught classes to younger students, and presented to many audiences. Together they lead and I facilitate.

When I take a backseat role, they learn to organize themselves and their individual strengths shine through. The passion they have for this project is nothing short of amazing and this recipe book is evidence of that. We hope you enjoy the book!

Professor Stephen Heppell

Director of Felipe Segovia Learning Innovation Chair, Felipe Segovia Foundation, Visiting Professor at Camilo José Cela University



This is a remarkable booklet from SEK students Alejandra Carazo, Mariá Martínez Jiménez, Maria Rabadán García Hernán, Roxana Roca, Amaya Sevilla Manso de Zuniga, Violeta Stein, Camila Suarez, Hanqing Wang with their inspirational teacher Kimberley Stein. The support of the school's Cartergest catering staff Lourdes Arroyo and Maria Barbero was exceptional too as they became absorbed by the project and inevitably became researchers too.

Beyond the book the students have led the project into research, data analysis, hypotheses, media creation, interviewing and more. They have passed on their insights to younger students, to parents, in fact to just about anyone and everyone because their audience for this work is global and its impact is considerable. The booklet had an interesting genesis:

Learning matters. Children everywhere spend a significant part of their early lives learning. Until recently, how how to attain your personal best as a learner is was not entirely clear. Of course, great schools, teachers and families all help build the bedrock of opportunity, but when it comes to the details, we have needed the new insights of science to point us in the right direction.

This is not unlike sport, a few decades ago. Sports stars would work hard, would see what had been tried before, but do more of it, or do it more intensively. Then along came the revolution in sport that is the Aggregation of Marginal Gains. At its simplest AMG said that if you improved everything by tiny amounts, the sum of those tiny amounts together would be a remarkable improvement. Everything mattered. Everything made a difference, however small. In olympic cycling, where this AMG mantra arguably began, those little details famously included even researching the best possible pillows for a good nights sleep before the Big Event, alongside a hundred other details too. Looking afresh at each of those tiny details led to some surprises, of course, and challenged some established practice.

One surprise was that sports stars needed to be a lot better at learning. There was so much more now to learn: set pieces, strategies, bio-mechanics, wellbeing, problem solving, diet... and so a fruitful dialogue began between Learning and elite Sport. Inevitably, as Sport discovered insights from Learning, so Learning discovered insights from Sport. Exploring every little detail meant precisely that, but the new insights of cognitive science from many fields (for example from car safety) brought fresh revelations: the impact of CO2 levels on concentration and engagement; the impor-

tance of light, and of the whiteness of light, to our attention and wellbeing; the contribution of body movement to academic performance; the damage to our concentration from excessive noise or too rapid sound rhythms; and so on. Much of this was underpinned by common sense; almost everyone reports well on their experiences of learning quietly out-of-doors, but now we had the data, the lux levels, the kelvin values, the decibel readings to let us know why.

Which inevitably brings us to diet. Sport has been particularly good at diet. Starting a marathon race without precisely calibrated carb-loading, or a pre-swim race diet without the requisite complex carbohydrates to keep those glycogen stores topped up, is to be defeated even before the starting signal. So an emerging question for children approaching important learning activities would also be "what should I be eating today? or yesterday? or indeed all this term?" and that is what our team set out to offer some guidance on.

A starting point was a comprehensive literature review, very much a traditional academic starting point: What do we already know? What ingredients might be helpful in recollecting past information? in absorbing new ideas? in being ingenious? in developing a supportive mindset that says "I really CAN do this"? It turned out that there was a lot of past useful research that helped to identify a top 20 ingredients list. In truth there were more than 20, but some were expensively scarce, some almost certainly would be impractical for a student diet and some just didn't offer enough impact to make our top 20.

Then, things got really interesting. The girls had real agency in this work. They engaged deeply with their research project. Surveys of student eating behaviours revealed some important insights. For example it was found that very few students had breakfast in the morning. One clear guidance from the literature review was that even if breakfast was less than ideal, some breakfast will always be better than no breakfast, so this finding was alarming. When we ran an open day the girls were there to champion the idea of brainfood and they presented their insights passionately to peers, parents and other guests and the result of the widespread interest that they found, is this helpful booklet.

One last observation. It is often observed that when you surprise students with what you ask of them, they astonish you right back with what they achieve. And that is once again what happened here.

Professor Stephen Heppell

Farid Mokhtar Ph. D. J. Carlos Segovia Ph.D.



Nutrition and cognitive performance

Much is said about nutrition, and for a relatively short time we have been talking about the importance of nutrition on the brain and, therefore, on cognitive performance. A correct diet in sports performance is a priority, but will it guarantee success in competitions? Obviously not, but a wrong diet, almost certainly, will lead us to a sporting and health disaster. The same premise applies to cognitive performance. Will eating properly guarantee academic results? No, but it will facilitate better neuronal connections, more fluid information, and better oxygenation of the brain, which in the end will allow us to obtain better cognitive results. And these behaviours should be avoided in conditions where students are confined for long periods of study during exams, due to illness or any other academic activity. This is why the importance of sociodemographic factors in the dietary preferences of children at an early age is vital.

We could even go further by echoing the findings of some studies that suggest that poor food choices, rich in saturated fat, salt and sugar, in preschool age are associated with reduced verbal and cognitive ability scores.

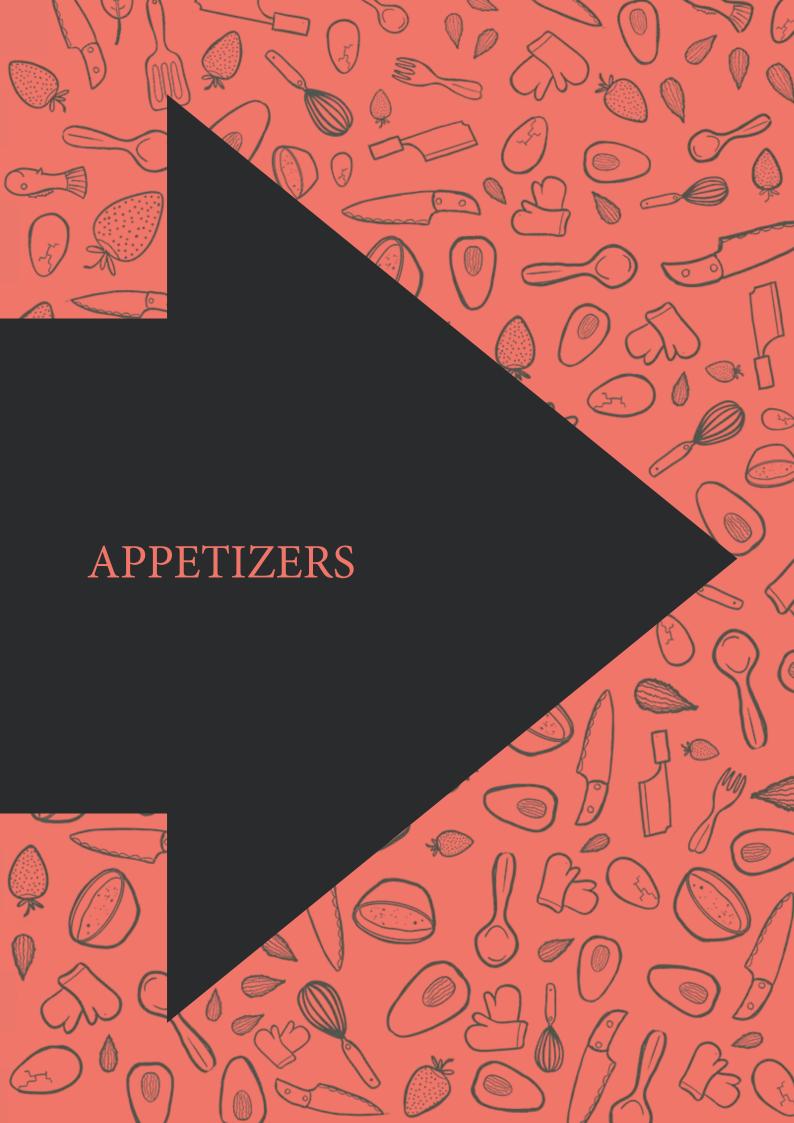
Sometimes opinions emerge as to whether breakfast is appropriate or not, in which case the balance strongly shifts more toward " adequate" breakfast.

We wanted to go a bit further by analysing the different ingredients that influence the various brain functions and/or connections, for their integration into students' daily diets.

But to integrate this model it is not enough to tell the students what is right and what is not, but in this case, we have intended that they are the ones who discover them; and use them to develop different recipes so that the message reaches the rest of their classmates better.

We hope that this initiative will continue over time, passing the baton to the next generations.





SPINACH AND ASPARAGUS TORTILLAS

What You Will Need

- A bunch of fresh asparagus and spinach
- One large potato
- Six free range eggs
- One small onion
- Sea salt
- Black pepper

The Brainfoods

Spinach Asparagus Eggs

- 1. Wash the vegetables to make sure they are free of dirt.
- 2. Steam the asparagus and spinach until tender, then cut into thin slices.
- 3. Slice the potato and onion evenly with care.
- 4. Fry the potato on both sides (until browned) in a bit of oil on a medium heat, adding the onions halfway through.
- 5. In a bowl whisk the eggs with the spinach and asparagus.
- 6. After you have finished whisking, add the potatoes and spinach, then season well.
- 7. Coat a pan with oil, put it on the stove on a low/medium heat. Cook until firm, then serve.











TURMERIC DEVILED EGGS

What You Will Need

- Six large eggs
- 60 ml of mayonnaise
- 1 tbsp. of lemon juice
- 1 tsp. of dijon mustard
- 1 tsp. of turmeric spice
- 1/2 tsp. smoked paprika
- 1/2 tsp. black pepper

Toppings

- Fresh dill
- Sesame Seeds
- Paprika
- Turmeric

How to Create

- 1. Put the eggs into a pot of cold water.
- 2. Bring to the boil then turn down to a low heat and cook for 6 minutes.
- 3. Take out the eggs and leave in bowl of cool water for 1-2 minutes
- Peel off the shell, then cut into halves. 4.
- 5. Carefully remove the hardened yolk from the white part of the egg.
- 6. Mix together completely, in a bowl, the following ingredients to make a paste: Mayonnaise, lemon juice, dijon mustard, turmeric spice, smoked paprika, pepper.
- 7. Carefully fill the whites of the eggs with paste, add your toppings, and serve!

The **Brainfoods**

Eggs Turmeric Lemon



RAW BROCCOLI SALAD

What You Will Need

- 2 Pieces of broccoli
- 2 cloves of garlic
- 2 tbsp. of finely chopped coriander
- 1 tsp. of cumin
- 1/2 tsp. turmeric
- 60 ml of olive oil
- Juice from 1 lemon
- 1/2 tsp. of sea salt

The Brainfoods

Broccoli Lemon Olive Oil Turmeric

How to Create

- 1. Wash and finely chop the broccoli.
- 2. Mince the garlic.
- 3. Add all the ingredients into a bowl, mix together with a spoon.
- 4. Cover and leave in the fridge for an hour.
- 5. Serve and enjoy!

Quick tip, if you want to change things up a bit, add a couple more vegtables!







Raw broccoli has significantly more beneficial nutrients than cooked. I was really suprised that when raw broccoli was prepared in this way it was delicious. I think the trick is chopping the broccoli as finely as possible.

BROCCOLI AND PUMPKIN COUSCOUS

What You Will Need

- 70 g of couscous
- One flower of broccoli
- 10 g of red cabbage
- 35 g of pumpkin
- 10 g of pumpkin seeds
- Olive oil
- Wine vinegar
- Salt
- Black pepper

The Brainfoods

Broccoli Olive oil Sunflower seeds

How to Create

- 1. Wash and grate the broccoli.
- 2. Slice the red cabbage very thin and mix with the broccoli.
- 3. Dice the small amount of pumpkin, season with salt and pepper, and fry until the pumpkin is slightly browned.
- 4. Start making the vinaigrette by mixing a small amount of olive oil with the vinegar and sunflower seeds, adding a pinch of salt.
- 5. Cook the couscous with boiling water from the kettle. Submerging the couscous in the boiling water.
- 6. Mix the couscous with the vegetables and the vinaigrette and serve!

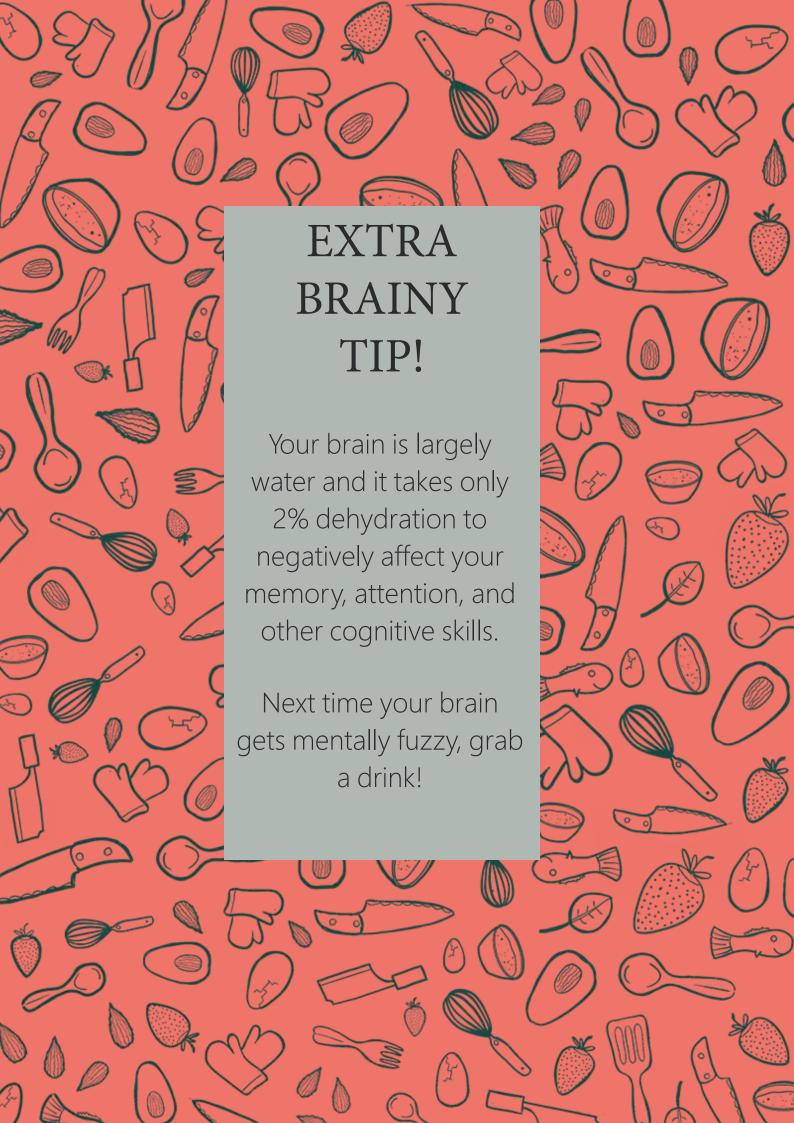






This recipe was submitted by María Barbero Ferrer, a Nutritionist at Catergest, who works with us on the Brain Food Project. She helps the project by ensuring to always include more of the Brain Foods in the school's salad bar station and lunch menus.











APPLE GUACAMOLE

What You Will Need

- 1/2 Kg of avocados
- 1/2 Kg of apples
- Green leaves of two leeks
- Olive oil
- The juice of $\frac{1}{2}$ a lemon or lime

How to Create

- 1. Wash all of the vegetables and fruit. Then peal the apples and avocados.
- 2. Steam the vegetables and fruit for three minutes to soften and prolong the life of the dressing.
- Put the vegetables and fruit into a bowl of cold water to stop the cooking process.
- 4. Add all the ingredients, except the olive oil, into the blender and blend.
- 5. Slowly, bit by bit, add the olive oil until you get the creamy texture of your liking.
- 6. After you have finished with creating the guacamole, serve as a dip with breadsticks, biscuits, apple slices or anything you like!

The Brainfoods

Avocado Lemon



AVOCADO CHIPS



What You Will Need

- 2 avocados
- -1egg
- Your favourite nuts

The Brainfoods

Avocados Olive Oil Nuts

How to Create

- 1. Pre-heat oven to 200 °c.
- 2. Cut an Avocado into halves the avocado should not be too ripe / soft. Remove the stone then cut it into wedges from one end to the other.
- 3. Decide which nuts are your favourites, turn them into tiny crumbs using a food processor (or even blender).
- 4. Seperate the yolk from the egg and beat it until even. After dip the avocados in the yolk coating evenly.
- 5. Turn the avocados in the nut crumbs covering them.
- 6. Bake the avocado chips, drizzling with a little oil, on a baking tray for around 10 minutes. Serve them hot!







This is a useful recipe if you cut into an avocado but find that it is too hard to be eaten easily - no problem, use it for the avocado chips recipe!

- STEPHEN HEPPELL

PEA GUACAMOLE WITH CITRUS FRUITS

What You Will Need

- 150 g of peas
- 2 carrots
- 2 pieces of celery
- 5 ml of orange juice
- 5 ml of grapefruit juice
- 7 ml of olive oil
- 5 g of onion
- 10 g of tomato
- 1 g of cilantro
- 0.5 g of salt



Celery Peas Orange Grapefruit Olive oil

How to Create

- 1. Boil the peas for 5 minutes then cool.
- 2. Cut up the tomato and onion to allow for an easier time when blending.
- 3. Add the peas together with the tomato, onion, juices, olive oil, cilantro and salt.
- 4. Then blend the ingredients together.





- 5. Wash the carrots and celery.
- 6. Cut the carrots and celery into sticks for use with guacamole.

This recipe was submitted by María Barbero Ferrer, a Nutritionist at Catergest, who works with us on the Brain Food Project. She helps the project by ensuring to always include more of the Brain Foods in the school's salad bar station and lunch menus.







CELERY LEAF OR KALE PESTO





What You Will Need

- 60 ml of olive oil + more as needed
- 240 g of celery leaves or kale
- 3 big cloves of garlic
- 60 g of walnuts
- 2 tbsp. of fresh lemon juice
- Salt

The Brainfoods

Olive oil Celery leaves Kale Walnut Lemon

- 1. Pre-heat the oven to 180 °c. Then wash the celery leaves or kale (if using celery use only the leaves).
- 2. Spread the almonds onto a baking tray and bake for three minutes.
- 3. Add together the almonds, greens, juice and garlic; then season with salt and pepper.
- 4. Blend together the ingredients slowly adding the olive oil until the pesto has reached a nice consistency.
- 5. You can serve this on bread or with pasta, healthy and delicious!









CRUNCHY GARBANZO BEANS

What You Will Need

- One jar of garbanzo beans
- 3-4 tbsp. olive oil
- 1/4 tsp. ground turmeric
- 1 tsp. curry powder
- 1-2 cloves of minced garlic
- Salt
- Black pepper

The Brainfoods

Garbanzo beans Olive oil Turmeric

- 1. With a clean kitchen towel, gently rub the beans to remove the skin.
- 2. Put them in a bowl and season with salt and pepper.
- 3. Add oil to a pan on a low/medium heat.
- 4. Fry the beans for 20 minutes, adding the turmeric, curry powder and garlic to the beans.
- 5. Serve it on top of pasta!



CHILLED ALMOND SOUP WITH GRAPES

What You Will Need

- 1 cup of almonds, pre-soaked overnight in water
- 2 slices of white bread, dried out overnight
- 1 small clove of garlic
- 1-2 teaspoons of sherry vinegar
- 1 apple, peeled and diced
- About 1 cup of cold water
- Ice cubes
- About ¼ cup of extra virgin olive oil
- Green grapes

How to Create

- 1. Place the stale bread into the blender and cover with the cold water and vinegar.
- Add the almonds, diced apple, and garlic. 2.
- Pulse in the blender until smooth. 3.
- 4. Taste and adjust with salt and vinegar.
- 5. Add ice if serving immediately (to make sure it's fully chilled).
- While blending, slowly add the olive oil. 6.
- 7. Taste and adjust seasoning.
- Chill in the fridge if you have time, then 8. serve with sliced green grapes on the top.

The Brainfoods

Almonds Olive Oil







This is a favorite summer soup in Spain, mainly — VIOLETA STEIN coming from Cordoba. It is very healthy and refreshing and best served with grapes on top.

COCONUT CURRY SALMON

What You Will Need

Curry:

- 2 salmon fillets
- 260g pumpkin
- 1 tsp. olive oil
- 1 tsp. paprika
- 1 tsp. coconut oil
- 400ml coconut milk
- 1 cup vegetable stock
- 6 cherry tomatoes
- 1 tsp. lime juice
- 80g asparagus tips

How to Create

- 1. Pre-heat the oven to 200 °c.
- 2. Peel and chop pumpkin into cubes, toss with paprika, salt and olive oil then, place on baking tray.
- 3. To the salmon, spread olive oil over its surface then season with salt and pepper.
- 4. Put the baking tray, with the pumpkin on, into the oven for five minutes. Then add the salmon skin side up and cook for a further 20 minutes.
- 5. Prepare the paste by blending all the ingredients listed.
- 6. Heat up 1 tsp. coconut oil in a pan on medium/low heat. Fry the curry mix for 2 mins whilst blending the tomatoes.

Curry paste:

- 1-2 small chillies
- 1 red onion chopped
- 40g ginger grated
- 2 garlic cloves chopped
- 1 tsp. coriander ground
- 10g fresh turmeric
- 1 tsp. ground turmeric
- 1 tsp. mustard seeds

The Brainfoods

Salmon Asparagus Turmeric Coconut oil



- 7. Add the tomatoes to the past, then cook for another minute.
- 8. Add coconut milk and stock, simmer for 10 to 15 minutes until sauce thickens. Serve it!

SPINACH, AVOCADO AND SALMON SALAD

What You Will Need

- One Salmon fillet
- One bag of spinach
- One diced avocado
- The juice of one lemon
- 60 ml of olive oil
- 55 g of parmesan
- 60 g of walnuts

Optional:

- Two scallions chopped
- 2 tsp. cilantro chopped
- Smoked or baked salmon or
- Two diced beetroot

How to Create

- 1. Pre-heat oven to 220 °c and bake the salmon for 6-8 minutes skin down. Make sure to coat the salmon in olive oil and season well.
- 2. Wash spinach and cut into small slices.
- 3. Dice the avocado and cheese, then crush the walnuts into small pieces.
- 4. Add the ingredients you have just prepared together including any of the optional ingredients.
- 5. Whisk together lemon juice, olive oil with salt and pepper.
- 6. Toss the newly created salad with the dressing to mix the ingredients together.

The Brainfoods

Spinach Lemon Walnut Salmon Beetroot Olive oil







"This is my dad's recipe and I love it. It's really delicious and healthy. It includeds as many as 6 brain foods!"

TOMATOES STUFFED WITH VEGETABLES AND MEAT

The Brainfoods

Veal Olive oil

What You Will Need

- 4 tomatoes
- 500 g of choppped veal
- 2 eggplants
- 200 g of rice
- 1 green pepper
- 120 ml of olive oil
- 2 chopped onions
- 2 small spoons of chopped parsley
- 1 clove of garlic
- 120 g of your favourite grated cheese
- 2 tbsp. of mint
- 2 tbsp. of salt and pepper



- 1. Wash the vegetables and make a cut on the top of the tomatoes, creating a bowl shape, remove the interior and set aside.
- 2. Bake the dough at 180 °c for 10 minutes, then take off the paper and bake for another 5 minutes.
- 3. Start heating the oil on a medium/low heat in a frying pan, whilst doing that cook the rice to the specified time.
- 4. Chop the green pepper, eggplants and onions then mix with the tomato pulp.
- 5. Fry the chopped veal for 10 minutes before adding the chopped vegetable mix and boiled rice. Season with the parsley, mint, salt and pepper.
- 6. Add water (may need to add more, see by eye) and cook for one hour. Adding chopped garlic 15 minutes before the end.
- 7. Pre-heat oven to 100 °c.
- 8. Put the tomatoes on a baking tray and fill with the cooked ingredients. Place the grated cheese on top making sure it is completely covered. Bake for 30-40 minutes.
- 9. Serve whilst still hot, and enjoy!







BROCCOLI, GARLIC AND SAUSAGE PASTA

What You Will Need

- 450 g of your favourite pasta
- 5 tbsp. of olive oil
- 450 g of sweet Italian sausage
- 3 garlic cloves
- 450g of broccoli
- $-\frac{1}{2}$ tsp. of salt

The Brainfoods

Broccoli Olive oil

- 1. Firstly, bring a pan of salted water to the boil, then put in your pasta.
- 2. Break off whole florets of the broccoli, and add to the pan of pasta, boil until pasta is cooked to your liking.
- 3. Meanwhile, heat 1 tsp. of olive oil in a skillet, on a medium/high heat.

- 4. Break apart the sausage and cook until the sausage has slightly browned.
- 5. Cut up the garlic and add to the pan with the broccoli, cook for two minutes.
- 6. Drain the pasta and serve with the sausage and broccoli.



SEASONED JICAMA FRIES

What You Will Need

- 1 medium Jicama
- 1 tablespoon Avocado oil
- 1/2 teaspoon of turmeric
- 1/2 teaspoon garlic powder
- 1/2 teaspoon onion powder
- 1/2 teaspoon sea salt
- 1/4 teaspoon black pepper

The Brainfoods

Avocado Turmeric Olive oil Jicama

- 1. Pre-heat your oven to 200 °c. Then cut your jicama into strips.
- 2. Season your jicama strips with turmeric, garlic powder, onion powder, salt, and black pepper.
- 3. Transfer to a baking tray, then drizzle with olive oil.
- 4. Bake for thirty minutes, before flipping then bake for another 20-30 minutes until browned.
- 5. Serve with guacamole, ketchup or garlic mayonnaise for a delicious sharing dish.







PUFF PASTRY WITH SPINACH AND MUSHROOMS

What You Will Need

- 1 pack of puff pastry
- 200 g of spinach
- 1 onion
- 200 g feta cheese
- 50 g of Emmental grated cheese
- 200 g mushrooms
- -1egg
- Salt
- Black pepper
- Olive oil

The Brainfoods

Mushroom Spinach Olive oil Egg

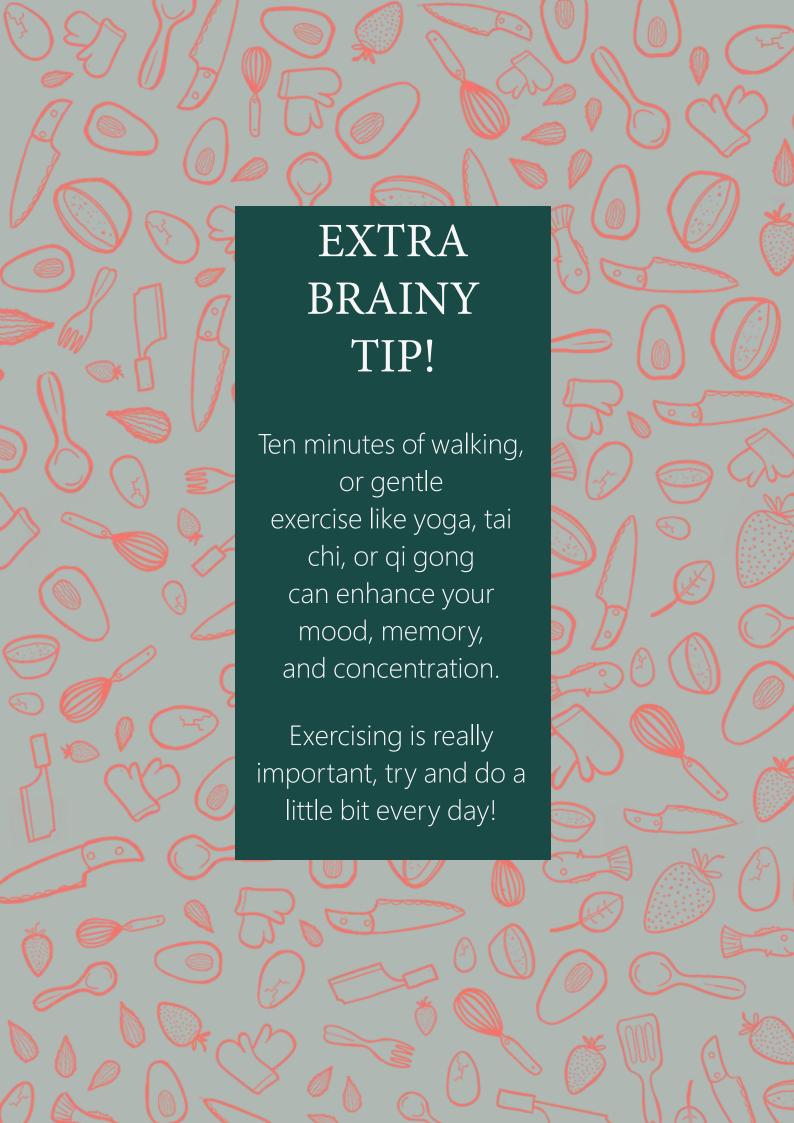
- Chop the spinach into strips, then wash and 1 soak for 5 minutes.
- Cut up the mushrooms and onions. 2.
- 3. Fry the onions on a medium heat with a little bit of olive oil for 5 minutes. Add the mushrooms and fry for another couple of minutes.
- Then add the spinach and cook until they 4 have reduced in size. Take off the heat and leave too cool .
- 5. Once cooled add the two cheeses and the egg, beaten, then mix.
- 6. Put in an oven proof dish, then cover with rolled out puff pastry. Bake in the oven at a temperature of 180 °c for 10 minutes. Serve!







Spinach is a food that I didn't eat before — Maria Rabadán García Hernán being part of the brain food group. It is a great source of many nutrients, like folate, iron, calcium and vitamins C and K How could I not like it?



QUICHE OF VEGETABLES AND GOAT'S CHEESE

The Brainfoods

Broccoli Olive Eggs Tomato Zucchini

What You Will Need

- "Brisa" dough
- 5 eggs
- 200 ml of milk cream
- 180 mg of goats cheese
- 1 tomato
- 1 medium zucchini
- 500 g of broccoli
- Olive oil



How to Create

- 1. Spread the dough on the bottom of a cake tin, then place some oven-safe paper on top of the dough to stop it from rising in the pre-heat.
- 2. Bake the dough at 180 °c for 10 minutes, then take off the paper and bake for another 5 minutes.
- 3. Wash the vegetables the boil the broccoli, removing the stems, in salty water for 10 minutes.
- 4. Slice the tomatoes and dice the zucchini.
- 5. Fry the zucchini in a little bit of olive oil, for about 10 minutes, season with salt and black pepper. Then add the broccoli and fry for a further 5 minutes.
- 6. In a bowl beat the eggs and cream together with a bit of salt and pepper.
- 7. Grate most of the cheese in and mix well adding the vegetables as well. Placing the slices of tomato on the top.
- 8. Put the rest of the cheese on top for decoration. Then bake for 30 35 minutes on a temperature of 190 °c.
- 9. Take out leave to cool for a few minutes before serving.



At first I thought making this recipe would be difficult but it was actually quite easy. The thing I like most about it is that you can change the vegetables to create different variations

Roxana Roca

SALMON WITH CASHEWS





How to Create

- 1. Wash the vegetables and cut the onion into slices.
- 2. Place the salmon skin side down onto the baking tray with the vegetables and cashews.
- 3. Spread olive oil over the salmon and drizzle a little over the vegetables. Season with salt and black pepper.
- 4. Pre-heat the oven to 220 °c and bake the salmon for 6 minutes or until cooked fully.
- 5. Serve on a bed of greens, with the onion and enjoy!

What You Will Need

- 2 Salmon fillets
- One onion
- 50 g of cashews
- Olive oil
- Salt
- Black Pepper
- Green leafy salad

The Brainfoods
Cashews
Salmon



SALMON AVOCADO WRAP

What You Will Need

- One Smoked salmon
- One avocado
- One tortilla
- 30 ml of sour cream
- 2 Eggs

The Brainfoods

Eggs Salmon Avocado



How to Create

- 1. Spread sour cream on tortilla.
- 2. Slice up smoked salmon and place evenly on the tortilla.
- 3. Place sliced up avocado in the wrap.
- 4. Boil an egg your favourite way and place with the spinach in the wrap.

If you're feeling a little bit lazy this is a perfect way to enjoy some brainfoods!







This is my own recipe which — Amaya Sevilla Manso De Zuñiga includes 3 brain foods!

QUINOA AND BEAN STUFFED AVOCADOS

What You Will Need

- 2 avocados, pitted
- 120 g of cooked quinoa
- 1 can black beans, drained and rinsed
- 2 scallions, sliced
- 1 red bell pepper, chopped
- 120g of corn
- 2 tbsp. of olive oil
- Juice of 2 limes
- Salt

The Brainfoods

Avocados Black beans



How to Create

- 1. Scoop out the avocados leaving a small border.
- 2. Dice the remaining avocado, as well as, the pepper and scallions.
- 3. Create the salad by mixing the quinoa, black beans, scallions, peppers, corn, and avocado. Toss with salt and a little olive oil.
- 4. Split evenly between the avocado halves

An extremely healthy meal, that is also very quick!





MIXED BERRY SMOOTHIE

What You Will Need

- 500 ml of apple juice
- 500 g of mixed berries
- One banana
- 100 ml of vanilla Greek yogurt

The Brainfoods

How to Create

- 1. Cut up the banana in to slices.
- 2. Blend together the banana, apple juice, and most of the berries. Some will be used for garnishing later on.
- 3. Serve, add honey and the berries.
- 4. Stir slightly to mix the honey in a little bit.

Refrigerate for a chilled and refreshing morning drink!







FRUITY INFUSED WATER

What You Will Need

- -Around seven sliced strawberries
- -One Sliced Lemon
- -Water
- -lce
- -Mint leaves (optional)

How to Create

- 1. Wash the fruit to make sure they are clean.
- 2. Remove stems off strawberries and cut t halves.
- 3. Slice the lemon and chop the mint leaves.
- 4. Add the fruit and mint into the water.
- 5. Leave and wait for the fruit and mint to infuse with the water.



The Brainfoods

Lemons Strawberries











COCONUT AND TURMERIC LATTE

What You Will Need

- 120 ml of strong coffee, or espresso
- 1 tbsp.. of coconut oil
- 1/4 teaspoon powdered turmeric
- 120 ml of coconut milk

How to Create

- 1. Put the coffee, coconut oil, coconut milk, and the turmeric in your blender or a bowl.
- 2. Blend or whisk until light and frothy.
- 3. Serve in a glass or teacup with sugar or syrup and enjoy

One more thing! An option for non-coffee drinkers is a nut based milk, delicious!

The Brainfoods

Coconut Oil Turmeric



My mother sometimes makes this coffee — Hanging Wang in the mornings, she says that it tastes awesome. We hope you like this easy and delicious recipe!

BLUEBERRY YOGURT PARFAIT

What You Will Need

- Plain yogurt
- Half a cup of blueberries
- Ground almonds
- Ground pumpkin seeds
- Honey



How to Create

- 1. Sprinkle a layer of almond nuts, and pumpkin seeds, in a glass.
- 2. Pour in some of your favourite natural yogurt, unflavoured or vanilla.
- 3. Repeat these steps for as many layers as you would like.
- 4. Top with blueberries and enjoy!



The Brainfoods

Blueberries Almonds Pumpkin Seeds





CHOCOLATE AVOCADO MOUSSE

What You Will Need

- 1 large ripe avocado
- 60 g of raw cocoa powder
- 60 ml of coconut milk or almond milk
- 2 tsp. stevia (or other natural sweetener)
- 1 tsp. natural vanilla extract

The Brainfoods

Avocado



How to Create

- 1. Cut the avocado into half, pit it, then scoop out the interior and purée until smooth.
- 2. Mix completely with the milk and cocoa.
- 3. Stir in the stevia, vanilla extract.
- 4. Transfer the mixture to the refrigerate, then leave for at least 6 hours.

You could add almonds for a nice crunch, or berries for that extra fruitiness!





I chose this recipe because it is healthy, tasty and easy to make. Fun fact: Did you know that avocados are fruits, not vegetables? And also, avocados, along with quavas, are the fruits with the highest protein content.

— Dr. Yolanda Requena

RAW CACAO BITES

What You Will Need

- 120 g of almond meal
- 60 ml of maple syrup or honey
- 2-3 tbsp. raw cacao powder
- Pinch of sea salt
- 1 tbsp. water

The Brainfoods

Almonds





How to Create

- Mix all ingredients together in a bowl until a doughy consistency is reached. It should be dry but stick together. Add more water or almond meal as necessary.
- 2. Roll into bite size balls.
- 3. You can keep them like this or dip them in different toppings such as dark chocolate shavings, coconut, or cinnamon.
- 4. Enjoy!



RED FRUIT CAKES





How to Create

- 1. Mix in a bowl the yogurt, flour, sugar, oil and eggs.
- 2. Slowly mix in some chocolate chips and some raspberries or blueberries.
- Pre-heat the oven to 180 °c. 3.
- 4. Place the dough in a mould of your choice.
- 5. Bake the cake until golden brown, and let it cool after taking it out of the oven.
- 6. Enjoy!

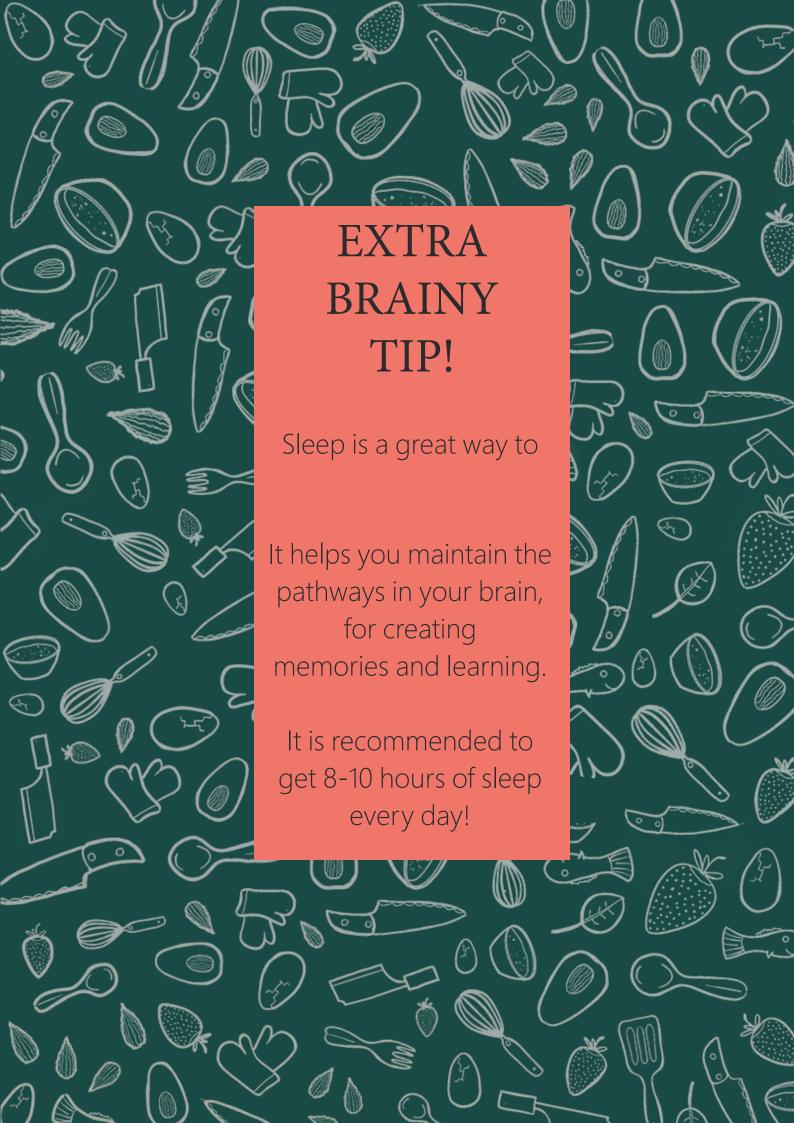
What You Will Need

- 120ml of yogurt
- 360 g of flour
- 80 g of flour
- 120 g of olive oil
- 3 eggs
- Dark chocolate chips
- Raspberries or blueberries

The Brainfoods

Eggs Dark Chocolate Berries





BEETROOT AND DARK **CHOCOLATE MUFFINS**

What You Will Need

- One beetroot
- 2 eggs
- 60 ml maple syrup
- 80 g of brown sugar
- 1/₄ tsp. salt
- 1/2 tsp. baking soda
- 60 ml of coconut oil
- 60 ml of almond milk
- 120 g of cacao powder
- 870 g of whole wheat pastry flour
- Dark chocolate chips

The Brainfoods

Beetroot Eggs **Almonds** Dark Chocolate

How to Create

- Steam the beetroot for 20 minutes to 1. soften it.
- 2. Peel and purée adding a little water if needed.
- Whisk together almond milk, vinegar in a 3. bowl and allow to curdle.
- 4. Then add the sugar, oil, vanilla and beetroot. Season with salt and mix. After sprinkle in the dark chocolate chips.
- 5. When the batter is smooth pour into liners and pre-heat oven to 190 °c.
- 6. Bake until golden brown, leave out to cool down afterwards, then enjoy!





DARK CHOCOLATE WALNUT BROWNIES

How to Create

- 1. Pre-heat the oven to 160 °c.
- 2. Mix together the butter, sugar, cocoa and the salt.
- 3. Set the bowl in a saucepan of simmering water, stir until the mixture is smooth.
- 4. Remove from the pan and add the vanilla, then the eggs. Add the eggs one at a time and mix well.
- 5. Then add the flour combining completely, after which, add the nuts stirring them in.
- 6. Spread evenly onto a, non-stick paper lined, baking dish. Bake for 20-25 minutes then leave to cool, delicious!

What You Will Need

- 5 tsp. coconut oil
- 5 tsp. unsalted butter
- 650 g of sugar
- 180 g of cocoa powder
- 1/, tsp. salt
- 1/2 teaspoon vanilla extract
- large eggs
- 120 g cup all-purpose flour
- 160 g cup walnuts
- Dark chocolate chips

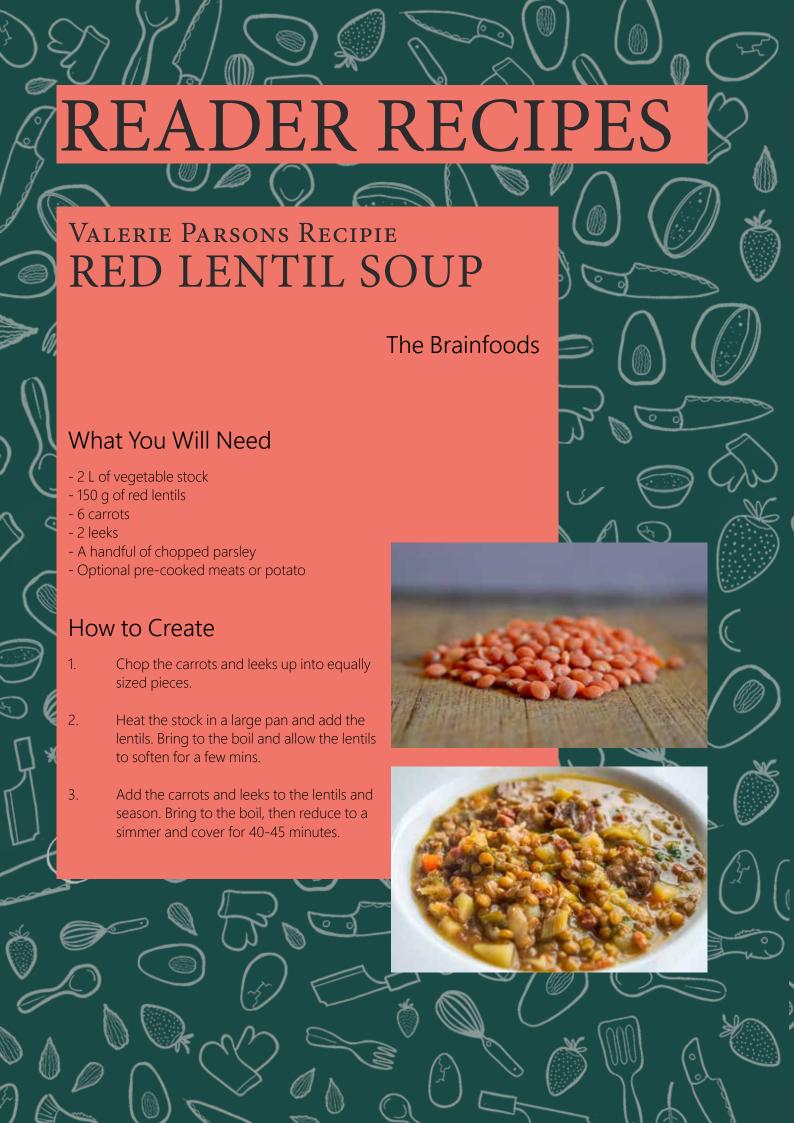
The Brainfoods

Dark chocolate Walnuts Eggs Coconut oil















Led by Dr. Juan Carlos Segovia, UCJC University

OLIVE OIL

Olive oil. Is rich in polyphenols, which are powerful protective antioxidants in the brain (Rodriguez-Casado A1. 2016). The recommended daily amount depends on the age of the child. Usually we talk about 30% of the total calories in the diet, approximately, but most people are not familiar with this calculation. Therefore, the simplest would be to recommend about 20 or 30 grams of olive oil daily or between 2 and 3 tablespoons, spread throughout the day.



COCONUT OIL

Coconut oils improves the ability of brain neurons to use energy while at the same time it is reducing the production of harmful free radicals. It provides saturated fat, a vital nutrient for the integrity and functioning of brain cell membranes.

(Swee Keong Yeap, 1 Boon Kee Beh, 2 Norlaily Mohd Ali, 3 Hamidah Mohd Yusof, 3 Wan Yong Ho, 4 Soo Peng Koh, 5 Noorjahan Banu Alitheen 2015)



SALMON

Wild salmon/ Salmon oil is one of the foods that can provide more properties and benefits to the body, as it is rich in Omega 3 essential oils, they have proven effective in reducing cholesterol and triglyceride in the blood, as well as stimulate its circulation, preventing the appearance of clots and thrombi. It also has DHA (Docosahexaenoic Acid) that is essential for the correct development of the brain and eyesight (Nyaradi, 2014). An excellent natural source of DHA omega-3 oil. DHA plays a fundamental role

in maintaining the health of brain cells and actually helps stimulate the growth of brain cells in the centre of brain memory. (Robert P. Friedland 2003; Rathod RS1, Khaire AA1, Kale AA1 2016). According to several studies published in the American Journal of Clinical Nutrition, eating fish regularly can also reduce your risk of dementia as you get older, another indication of its impact on brain health.

BERRIES



Blueberries, Strawberry. Colourful berries such as blueberries, cherries, blackcurrants, raspberries, blueberries, blackberries, currants and even grapes, seem to reduce the level of toxins in the blood stream, in addition to containing phytonutrients and antioxidants that improve blood flow to the brain and improve neuronal activity too. Powerful with brain protective antioxidants, blueberries also help reduce inflammation, a cornerstone of virtually all degenerative brain disorders (Kelly E1, Vyas P2 2017). Some supplements (strawberry, spinach or cranberry at 14.8, 9.1 or 18.6 g of dry aqueous extract per kilogram of diet, respectively) fed for 8 weeks to 19-month Fischer 344 rats were also effective in reversing age-related deficits in several Neural and





behavioural parameters (Joseph JA1, Shukitt-Hale B, Denisova NA, Bielinski D, Martin A, McEwen JJ 1999.

TURMERIC

Turmeric acts to activate the parts of our DNA that help reduce inflammation. The important role of turmeric in brain health has been described in Vedic texts dating back more than 3,000 years ago The present study demonstrates the possible involvement of apoptotic signalling (morphological pattern that occurs after the death of a tissue in living organisms) mediated by oxidative cascade -inflammatory in cognitive deficits associated with postnatal ethanol exposure and points to theneuroprotective potential of curcumin to mitigate alcohol-induced behavioural, biochemical and molecular deficits (Tiwari V1 2012).

(Sun CY1, Qi SS, Zhou P, Cui HR, Chen SX, Dai KY 2013) (Rinwa P1 2012) (Ng TP1, Chiam PC, Lee T, Chua HC, Lim L 2006).



EGGS

Eggs are rich in choline, the chemical precursor of acetylcholine, one of the most fundamental neurotransmitters. In addition, eggs contain cholesterol, an important component of brain cell membranes, in addition to serving as a protective antioxidant in the brain. It seems that egg doses may be greater than the three per week that was recommended so far.

(Leventakou V1, Roumeliotaki T1, Sarri K1, Koutra K1, Kampouri M1, Kyriklaki A1, Vassilaki M1, Kogevinas M2 2016) (4 2016).



NUTS

Walnuts and almonds are rich in a variety of some nutrients to support brain health, including vitamin E, omega-3 fats, copper, manganese and fiber for intestinal bacteria that support the brain. Like fatty fish, almonds have high levels of brain-healthy omega-3 fatty acids and a lot of vitamin E. It protects the brain. (Sanchez-Aguadero N1,2, Garcia-Ortiz L3,4, Patino-Alonso MC5,6, Mora-Simon S6,7, Gomez-Marcos MA3,8, Alonso-Dominguez R3, Sanchez-Salgado B3, Recio-Rodriguez JI3 2016), (Chung YC1, Park CH, Kwon HK, Park YM, Kim YS),

Nuts contain a good amount of iron and also provide oxygen to the brain, this then increases your mental alertness and also the ability to retain information. A minimum of one ounce of nuts a day is recommended for optimal brain health. Since nuts are high in unsaturated fats and calories, it would seem like a perfect recipe for a much better cognitive performance. Doo JK, Shin DH, Jung ES, Oh MR 2012) (Dias VV1, Brissos S, Frey BN, Andreazza AC, Cardoso C 2009) (Tupe RP1 2009).





ASPARAGUS

Asparagus is rich in prebiotic fiber to help healthy intestinal bacteria for the brain. Asparagus has a high content of anti-inflammatory nutrients and folic acid. (Lei L1, 2, Chen Y2, 3, Ou L4, Xu Y5 2017) (Sui Z1, Qi C, Huang Y, Ma S, Wang X, Le G 2017) (Salemme A1, Togna AR2, Mastrofrancesco A3, Cammisotto V2, Ottaviani M3, Bianco A4 2016).



KALE

Kale is high in zinc. Zinc supplementation and zincrich foods is effective in improving cognitive performance and the salt recognition threshold of adolescent girls. (Tupe RP1 2009). All our data indicates the beneficial effects of supplementation with vitamin B12, omega-3 fatty tacids over two generations on brain development and function. (Rathod RS1, Khaire AA1, Kale AA1 2015). This review describes some recent literature on the health benefits of selected fruits and vegetables. Importantly, since some phytochemicals, they regulate the same genes and drug-directed pathways, diets rich in fruits as well as vegetables in combination with medical therapies are being considered as new treatment approaches. Therefore, phytochemicals in fruits and vegetables

could be a promising tool for the prevention and / or improvement of a wide range of diseases. (Rodriguez-Casado A1. 2016). A large low carb vegetable that is rich in vitamins C, K and A, in addition to potassium and iron.



BROCCOLI

Broccoli has a high content of sulfurofano, a chemical that helps in detoxification, inflammation reduction and control of harmful free radicals. A long-term study by the Harvard Medical School revealed that broccoli, cauliflower, cabbage, Brussels sprouts, and bok choy, had the most positive effect on memory retention, which means they are the most likely to help you to achieve better grades. Eating these raw vegetables is the best way to get the optimal nutritional benefit, since cooking often cooks the nutrients that your body and your brain need most. (Leila Khalaj, 1, * Sara Chavoshi Nejad, 2 Marzieh Mohammadi, 2 Sadaf Sarraf Zadeh, 2 Marieh Hossein Pour, 2 Ghorbangol Ashabi, 2 Fariba Khodagholi, 2 and Abolhassan Ahmadiani 2 2013) (Rodriguez-Casado A1. 2016).



AVOCADO

High in monounsaturated fats to protect the brain cells, avocado oil has been shown to help maintain healthy blood pressure levels.

(Omar Ortiz-Avila, 1 Mauricio Esquivel-Martínez, 2 Berenice Eridani Olmos-Oriz ba, 2 Alfredo Saavedra-Molina, 1 Alain R. Rodriguez-Orozco, 3 2015).



DARK CHOCOLATE

Like red wine, dark chocolate is rich in polyphenols These enter the brain and induce a general stimulation of cerebral perfusion. They also cause angiogenesis, neurogenesis and changes in the morphology of neurons, mainly regions involved in learning and memory. Chocolate also induces some positive effects on mood and it is often consumed under emotional stress.

(Nehlig 2013) (Camandola S1, Plick N1, Mattson MP2 n.d.).



SPINACH

Spinach is rich in protective antioxidants of the brain along with vitamin K, folate, lutein. Spinach, like other vegetables, has a high nitrate content, which improves endothelial function, reduces blood pressure and also oxygen cost of sub-max mal exercise and increases regional perfusion in the brain. (Wightman EL1 2015). (Bondonno CP1, Downey LA, Croft KD, Scholey A, Stough C, Yang X, Considine MJ, Ward NC, Puddey IB, Swinny E, Mubarak A 2014) (Joseph JA1, Shukitt-Hale B, Denisova NA, Bielinski D, Martin A, McEwen JJ 1999) (Rodriguez-Casado A1. 2016) (Schiffer et al. 2013).



BEETROOT

Individual doses of daily nitrates, which can be found in beetroot, can modulate blood flow to a task and potentially increases cognitive performance and suggests a possible mechanism in which the consumption of vegetables can benefit the effects on brain function, however in other works this nitrate supplement It increases the performance of long-term exercise although it does not improve cognitive performance after fatigue.

(Thompson C1, Vanhatalo A1, Jell H1, Fulford J2, Carter J3, Nyman L3, Bailey SJ1 2016) (Thompson C1, Wylie LJ, Fulford J, Kelly J, Black MI, McDonagh ST, Jeukendrup AE, Vanhatalo A 2015) (Kennedy DO5. 2015).



CELERY

The results showed that both doses of 30 mg / kg • d L-NBP and 10 mg / kg • d L-NBP of L-NBP (Apium graveolens Linn seed extract, Chinese celery) significantly increased memory capacity and BDNF / TrkB / PI3K / AKT hippocampal expression in mice. The suggested results that treatment with L-NBP may reverse memory impairment in APP / PS1 transgenic mice, and BDNF / TrkB / PI3K / AKT, may be involved in this process.

(Xiang J1, Pan J2, Chen F1, Zheng L1, Chen Y1, Zhang S1 2014).



MEAT AND FISH

Creatine is found inside of meat and fish and the application of creatine in health and disease studies has recently been prompted with encouraging results in studies of sleep deprivation and cognitive performance. Dietary creatine monohydrate supplementation increases neuronal creatine, increases corticomotor excitability and prevents decreased attention that occurs during severe oxygen deficiency. (Turner CE1, Byblow WD2 2015), (Twycross-Lewis et al. 2016).



LENTILS, BEANS AND PEAS

Legumes, like certain seafood, such as mussels or cockles, guts such as liver or red meat (the latter with once a week is enough) are rich in iron. Iron, as noted above, is good for the brain because it helps us improve attention, memory and cognitive performance, as it improves communications. Although long-chain PUFA Fe and n-3 (AGPICL n-3) have been associated with cognitive performance, the evidence is inconclusive in well-nourished school-age children. (Sørensen LB1, Damsgaard CT1, Dalskov SM1, Petersen RA1, Egelund N2, Dyssegaard CB2, Stark KD3, Andersen R4, Tetens I4, Astrup A1, Michaelsen KF1 2015) (Rabin BM1, Poulose SM2, Carrihill-Knoll KL1, Ramirez F2 Bielinski DF2, Heroux N1 2015).



PUMPKIN SEEDS

Pumpkin seeds a are rich source of zinc, a mineral that plays an important role in memory and brain function in general. (Black 1998) (Ramirez-Zea 2009).



CITRUS JUICE

Consuming citrus juice rich in flavanone in commonly consumed amounts can sharply improve blood flow to the brain in healthy young adults. Chronic daily consumption of 100% flavanone-rich orange juice for 8 weeks is beneficial for cognitive function in healthy older adults.

(Lamport DJ1, Pal D1, Macready AL2, Barbosa-Boucas S1, Fletcher JM3, Williams CM1, Spencer JP2 2016) (Kean RJ1, Lamport DJ1, Dodd GF1, Freeman JE1, Williams CM1, Ellis JA1, Butler LT1 2015) (Alharbi MH1, Lamport DJ2, Dodd GF3, Saunders C4, Harkness L4, Butler LT3 2016).



JICAMA

One of the best sources of prebiotic fiber. Jicama, also known as Mexican yam, is rich in vitamin B6, folic acid and vitamin E. The present study has illustrated, for the first time, the acute inhibitory effects of bean root juice and guava juice on ex platelet aggregation live induced by collagen in healthy subjects. It has been shown that nitrate in the diet underlies the effect of bean root juice, but not that of guava juice. After ingestion of bean root juice, systemic nitrate apparently becomes nitrite and then NO, which can attenuate platelet responses to collagen stimulation. The cardiovascular benefits of juices from yam root and guava are notable in terms of the cardiovascular health promotion approach

(Thaptimthong T1, Kasemsuk T1, Sibmooh N1 n.d.).



BRAIN FOOD RECIPES

THANK YOU FOR READING

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The Brain Food project aims to spread awareness about the importance of nutrition, specifically how nutrition can support brain health and learning. We share what we learn through informational videos, presentations at events and lessons to primary students. Now, through this recipe book, we hope to promote eating the foods that have been shown to have a positive effect on the brain and learning.

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