

# THE MATCHA HANDBOOK

By Heapwell Superfoods



# WHAT IS MATCHA?

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*Matcha is a finely ground Green Tea powder made from the young and nutrient rich leaves of the green tea plant.*



The green tea that is made into matcha is grown in the shade, limiting sunlight, for about 20 days before harvest. Tea farmers will build structures to lay out sunlight filtering screens to shade the tea leaves so that it has to work harder to reach sunlight. This shading results in nutrient-heavy and vibrant green colored tea leaves. After the tea leaves have been picked, they are steamed, dried, then pass through a special machine that removes all the stems and veins. The remaining leaf is then ground into a very fine powder.

Tea has been cultivated since the dawn of civilization. First introduced in China during the 9th century, tea was brought to Japan by Zen Buddhist monks. It was not until the 12th century, however, that it became a widely popular beverage. Since then, tea has influenced every facet of Japanese culture. To this day the Japanese tea ceremony, Chanoyu, is a time-honored tradition that literally translates to “the way of tea”.

Tea plants are shaded for 4-5 weeks after the new buds come out. In general this is spring as spring leaves have the strongest flavor, but lower quality matcha will also come from summer and autumn flushes of leaves. As the year progresses, the leaves have less and less flavor / color.

If machine harvesting, a plastic material covers the hedges directly. If hand-picking (only a very small percentage of matcha produced is hand-picked) then canopy shading is used. The highest quality matcha will use labor-intensive traditional material (straw, bamboo scaffolding).

Note, the shading reduces the antioxidants in the leaf, thereby reducing the bitterness. On the other hand, it also preserves the theanine, creating the umami savory flavor.

Leaves are harvested by machine or by hand, taken immediately to a factory to be steamed and dried in a special oven. No rolling is done which makes it different from other types of green tea. The resulting leaf is called "tencha" though it's still in its rough state.

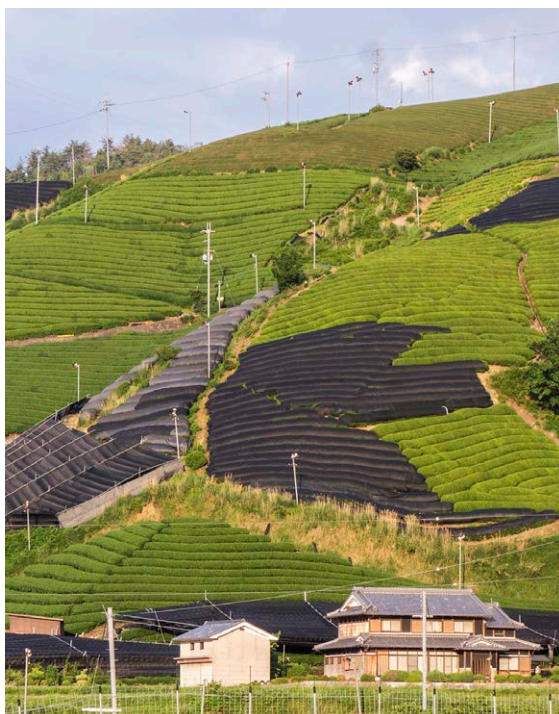
The lowest quality matcha can actually be made with special techniques using the rolling machines meant for sencha. In that case, it would be called "mogacha" not tencha, and the resulting powder would be called matcha by some and an imitation by others.

To preserve the leaf for processing at a later date, it can be flash frozen after steaming and before drying.

The tencha is refined...stems and dust are removed, the leaves chopped into smaller flakes.

The highest quality matcha will be stored in refrigeration for another half year to allow the bitterness to degrade even further.

The tencha is ground into matcha. This can be done by stone mill (more expensive matcha) or by other pulverization machines...some of which have gotten very sophisticated and are able to produce quite excellent quality.



#### SHADED MATCHA FARMS

Shading preserves the theanine and reduces the bitterness.





# HEALTH BENEFITS OF DRINKING MATCHA

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## *Loaded with Catechin, EGCg*

You may have already heard that not all anti-oxidants are created equal. Green tea contains a specific set of organic compounds known as catechins. Among antioxidants, catechins are the most potent and beneficial. One specific catechin called epigallocatechin gallate (EGCg) makes up 60% of the catechins in Matcha green tea. Out of all the antioxidants, EGCg is the most widely recognized for its cancer fighting properties. Scientists have found that Matcha contains over 100 times more EGCg than any other tea on the market.

## *Enhances Calm*

For over a millennium, Matcha green tea has been used by Chinese Daoists and Japanese Zen Buddhist monks as a means to relax and meditate while remaining alert. Now we know that this higher state of consciousness is due to the amino acid L-Theanine contained in the leaves used to

make Matcha. L-Theanine promotes the production of alpha waves in the brain which induces relaxation without the inherent drowsiness caused by other “downers.”

*When you add matcha powder to hot water to make tea, the tea contains all the nutrients from the entire leaf. It will tend to have more catechins and antioxidants than simply steeping green tea leaves in water.*

**CEREMONIAL GRADE**

Spring harvest Matcha  
from the finest tea growing  
region of Uji, Kyoto



### *Boosts Memory & Concentration*

Another side-effect of L-Theanine is the production of dopamine and serotonin. These two chemicals serve to enhance mood, improve memory, and promote better concentration – something that can benefit everyone.

### *Aids Weight loss*

As already discussed, Matcha green tea is rich in catechins, and more specifically an antioxidant known as EGCG. Matcha green tea contains three times more of this antioxidant than other green teas. Research shows that catechins have a positive impact on body mass index.

In one study the way catechins impacted body fat was assessed in 2 groups of healthy Japanese men. After two weeks of healthy eating the men were divided into two groups with similar body mass indexes and waist circumferences. The study lasted 12 weeks and participants drank 1 bottle of green

tea containing 690 mg catechins or 1 bottle of green tea containing 22 mg of catechins. After the conclusion of the study it was found that the below things were greatly reduced in the group drinking the tea with the most catechins.

body mass index  
waist circumference  
body fat mass  
subcutaneous fat area

Because of this, it is thought that drinking green tea, especially Matcha green tea could help reduce obesity.

In another study it was found that the EGCG in Matcha can boost metabolism during moderate-intensity exercise. Researchers found that green tea extract was able to increase participant's fat-burning abilities by 17% when they cycled for 30 minutes.

## *Increases Energy levels and Endurance*

Samurai, the noble warriors of medieval and early-modern Japan, drank Matcha green tea before going into battle due to the tea's energizing properties. While all green tea naturally contains caffeine, the energy boost received from Matcha is largely due to its unique combination of other nutrients. The increased endurance from a bowl of Matcha Green Tea can last up to 6 hours and because of the effects of L-Theanine, Matcha drinkers experience none of the usual side-effects of stimulants such as nervousness and hypertension. It's good, clean energy.

## *Detoxifies body*

During the last three weeks before tea leaves are harvested to be made into Matcha, *Camellia sinensis* are covered to deprive them of sunlight. This causes a tremendous increase in chlorophyll pro-

duction in the new growth of these plants. The resulting high levels of chlorophyll in Matcha green tea not only give this tea its beautiful vibrant green color. Matcha is also a powerful detoxifier capable of naturally removing heavy metals and chemical toxins from the body. In another study it was found that the EGCG in Matcha can boost metabolism during moderate-intensity exercise. Researchers found that green tea extract was able to increase participant's fat-burning abilities by 17% when they cycled for 30 minutes.



### *Fortifies the immune system*

The catechins in Matcha green tea have been shown to have antibiotic properties which promote overall health. Additionally, just one bowl of Matcha green tea provides substantial quantities of potassium, vitamins A & C, iron, protein, and calcium. Further studies have even suggested that the nutrients in Matcha may have the ability to inhibit the attacks of HIV on human T-cells.

### *Improves cholesterol*

Researchers aren't entirely certain how Matcha green tea has such a positive effect on cholesterol, however studies of different populations have show that people who drink Matcha on a regular basis have lower levels of LDL (bad) cholesterol while at the same time displaying higher levels of HDL (good) cholesterol. Men who drink Matcha green tea are about 11% less likely to develop heart disease than those who don't drink Matcha.

### *Amazing flavour*

Drinking something just because it's healthy can be a lot like swallowing medicine. It's unpleasant and you dread it (I'm looking at you apple cider vinegar!), but you feel obligated to do it. After all, it's good for you... right? Sure, but wouldn't you rather look forward to improving your overall well-being? Of course you would!

Fortunately, unlike a lot of other teas which require sugar, milk, or lemon to make them palatable to the average consumer, Matcha is absolutely wonderful all by itself. It's crisp vegetative notes are complimented by the savory taste of the L-Theanine amino acid making Matcha a tea that is truly unique in every way. So sit back, relax, and enjoy a delicious bowl of hot Matcha.



**MATCHA CUP CAKES**



# TEA CEREMONY



Matcha tea and its ceremony were influenced by a young Chinese man called Lu Yu, an orphan, who ran away from a monk and joined a circus. On his journey he met a poet, Huangfu Zheng who wrote a poem about him and was adopted by a wealthy governor who opened his library to Lu Yu, quickly turning him into a scholar.

Investing the Ch'a Ching (or traditional tea) and combining it with religious thinking of his time (Buddhist, Taoist, or Confucian) Lu Yu sought to combine the earthly process of tea making with a universal oneness via the ceremony.

Lu Yu created tea with so much love that the ceremony and love poured into each pot became the Japanese Tea Ceremony, steeped in tradition, artistic in nature and unique to Japan, the ceremony is much like that of a true artist - unique to its host (or Teishu). The practice is said to be similar to meditation, clearing the mind with a sense of connection.



Aesthetically it's a contemplation of flower arranging, ceramics, and calligraphy, the art is appreciated in simplicity in the tea room's design.

Ritually the preparation requires the host (Teishu) to cook a special meal called a Kaiseki, flowers are placed in an alcove (Tokonoma) and utensils are set as per the rank of each guest.

As matcha tea did not reach Japan until the end of the 12th century and it too until 14th Century for its health benefits to be known, it became part of the ceremony practice of the upper class.

It begins with the host and plenty of preparation. As soon as guests gather they should be directed into a special room set up by the host, known as a machiai.

After everyone has arrived, the guests walk across a dew-covered ground, it's part of a cleansing ritual to remove the dust (literally and metaphysically) from the feet and the cares of the world. To further purify themselves for the ceremony ahead, guests wash their hands and mouths using clean water from a stone basin.

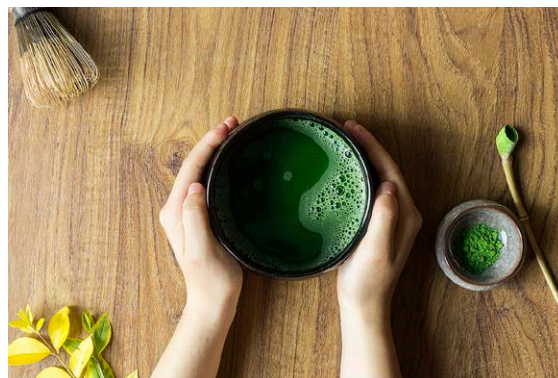
Once the purification rites are complete, the host greets each guest with a silent bow as they enter the tea ceremony site, depending on how formal the host makes the ceremony small sweets or even a three-course meal may now be served prior to the tea being poured.

Next, the host properly prepares the pouring utensils, taking great care to ensure they are immaculately clean and unblemished.

Finally, it's time for the matcha tea powder! Your job as host is to gracefully add one to three scoops of matcha green tea powder per guest into the group bowl, followed by a small amount of hot water.

Using a traditional bamboo whisk, the host rapidly stirs the mixture to create a bright green paste, adding additional hot water and whisked to produce a thick, rich tea.

Tea is then served and guests should feel a sense of connection to each other and to the universe - just as Lu Yu would have felt all those years ago.



#### SHADED MATCHA FARMS

Shading preserves the theanine and reduces the bitterness.

# PREPARATION TOOLS

*Tea equipment is called Dōgu. A wide range of Dōgu is necessary for even the most basic tea ceremony. A tea devotee would have to be in possession of almost all of these Dōgu in order to hold a Chaji (a full tea ceremony with Kaiseki meal) and to teach students.*



## Chakin

The Chakin is a rectangular, white, linen or hemp cloth used by chakin cloth to wipe chawan the Teishu to ritually cleanse the tea bowl after a guest has finished drinking the green tea and returned it.



## Chasen

Tea-whisks are carved from a single piece of bamboo. Though they are a chasen tea whisk to mix hot water with powder green tea necessary part to serve tea, Chasen whisks themselves aren't considered as Dōgu.



### Chashaku

Chashaku tea-scoops are carved from a single piece of bamboo or ivory. It is an important utensil to get the matcha proportions correct. A bamboo Chashaku in the most casual style is with a nodule in the approximate center. They are used to scoop tea from the Chaire or Natsume into the Chawan.



### Chawan

Arguably the most essential implement; without these, chawan tea bowl for serving guests green tea could not be served or drunk at all. Chawans are available in a wide range of sizes and styles, and different styles are used for thick and thin tea. Shallow bowls, which allow the tea to cool rapidly, are used in sum-



### Fukin

Hemp cloth used to wipe the Chawan clean after having served a bowl of matcha-tea to a guest. It is usually placed on the Kama lid during tea preparation. It is also used when refilling the Mizusashi with the Yakan to prevent water from spilling.



### Fukusa

The fukusa is a square silk cloth used for the ritual cleansing of the Chashaku and the Natsume, and to handle a hot Kama lid. Fukusa are sometimes used by guests to protect the tea implements whilst examining them (though usually these fukusa are a special style called Kobukusa or Dashibukusa).



# RECIPES

## USUCHA & KOICHA

*Usucha & Koicha are two traditional Japanese styles of Ceremonial Matcha preparation. Usucha is literally light tea, thinner type of Matcha Tea, while Koicha is thick tea.*



1) Preheat the matcha bowl by filling it about 1/3 full with hot water. Then place the whisk facing down into the hot water to wet the tips of the prongs (not the whole whisk!). Once the bowl has thoroughly preheated, empty out the water and dry the bowl out preferably with a cloth such as a chakin. Set the whisk aside and then measure out 70ml/2.3oz for Usucha, or 40ml/1.3oz for Koicha of hot water into a measuring cup and leave it to cool.

2) Use the bamboo scoop to measure the matcha powder, about 2 scoops for Usucha, or 3-4 scoops for Koicha, and place it into the bowl. Note, sifting the matcha prior to measuring out the matcha is highly advisable to remove any clumps of powder.

3) Once the water that was measured out in STEP 1 drops to 70°C(158°F)-80°C(176°F) pour it into the matcha bowl.

4) Take the whisk in one hand and hold the rim of the matcha bowl with your other hand. <strong>For Usucha, whisk the matcha briskly in a W motion using your wrist (not arm) until the matcha has a thick froth with many tiny bubbles on the surface. For Koicha, the idea is NOT to make a frothy consistency with a fast whisking action like usucha. Instead, a slower kneading action from left to right, up and down, and a gentle 360 degree rotating action as shown in the image (to the left) can be used to make a thick consistency. The resulting tea should be reasonably thick, smooth and without froth.

## ICED MATCHA TEA

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Ready to go in 30 seconds flat, this quick and easy iced matcha green tea recipe will have you enjoying the refreshing taste of green tea in no time.

1) Add warm water and matcha powder into a cocktail shaker. Shake well until the mixture is fully combined and there are no lumps.

2) Add the cold water, honey, mint, and crushed ice to the cocktail shaker. Shake well for another 10 seconds.

3) Divide the iced tea equally into two glasses and garnish with lime slices.

## MATCHA LATTE



Let's see how we can give a contemporary twist to the classic latte. This latte is super easy and a quick-fix to bid adieu to stress and anxieties. No fancy equipment required whatsoever. So, let's get cracking!

### The Matcha Coconut/Almond Latte

#### Ingredients:

1. 1 to 1 & ½ teaspoon of Heapwell Superfoods Matcha tea powder
2. ¼ cup hot water
3. ¼ cup warm coconut/almond milk
4. 1 teaspoon sugar or honey or any kind of sweetener

#### Procedure:

1. Add Heapwell Superfoods' matcha powder to a mug.
2. Add the hot water and stir well for about half a minute. Stir briskly to get a frothy consistency. (You can also use a small whisk here.)
3. Add the warm coconut/almond milk
4. Add the sugar and mix well.

Et voilà, your steaming mug of matcha coconut latte is ready. Sit back, and let go of the daily grind as this latte will help you rejuvenate and relax.





## MINTY MATCHA NICE CREAM

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### Ingredients

400ml of coconut milk, solid part only

2 chopped up frozen bananas

3. 5 tablespoons of agave syrup or maple syrup

2 teaspoons of Heapwell Organic Ceremonial Matcha Green Tea

A small handful of mint leaves plus extra for garnishing

### Method

Love ice cream but don't have an ice cream maker?  
Love this classic chilled dessert but can't have dairy?  
Afraid of all the calories? This minty matcha nice cream alleviates all these issues as you only need a blender, is vegan friendly and gluten free and contains considerably less calories and added benefits from the new organic ceremonial matcha green tea from Heap-

well. Read on to see just how easy it is, only needing a handful of ingredients and a couple minutes to spare.

Simply add all your ingredients together in your food processor or high powered blender and blend until smooth, scrape down the sides with a silicone spatula in between pulses to ensure its all fully incorporated. It should look like soft serve nice cream.

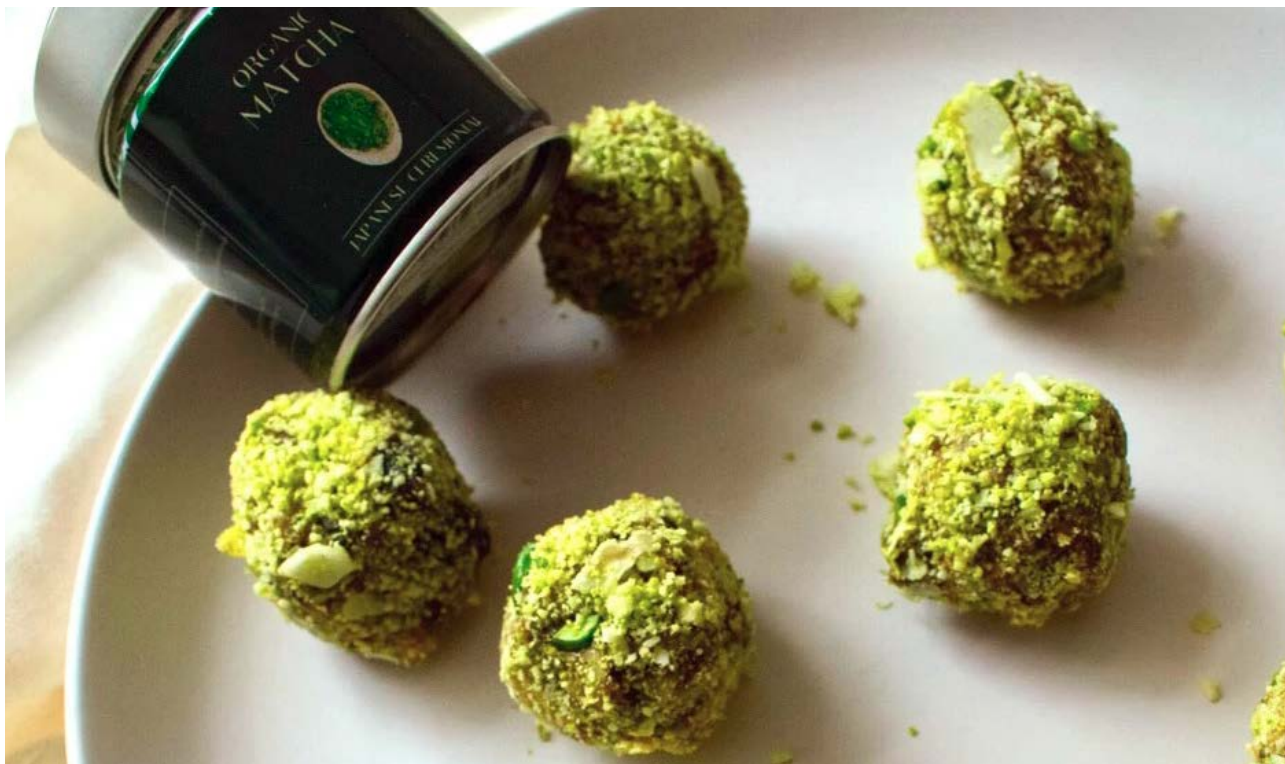
Pour your nice cream into your ice cream dish which is lined with greaseproof paper and freeze for a minimum of 3 hours or overnight.

When you're ready to serve, allow the nice cream to sit on the counter for 10-15 minutes before serving with your ice cream scooper.

Give this nice cream a go to boost your energy levels, give you a refreshing sensation on your palette and boost your antioxidant levels up today. This nice cream is best stored in the freezer and keeps for up to 6 months!

## MATCHA ENERGY BALLS

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### Ingredients

Makes around 8-10 matcha balls

For the matcha balls:

- 5-6 prunes
- ½ teaspoon of sea salt
- 2 tablespoons of maple syrup
- 2 tablespoons of sunflower seeds
- 3 tablespoons of pumpkin seeds
- 150g of ground almonds
- 3 tablespoons of linseeds
- 100g of pistachios plus extra for coating
- 100g of desiccated coconut plus extra for coating
- 1 level teaspoon of Heapwell Finest Ceremonial Matcha Green Tea

### Method

It's April, spring has sprung and what better way to fuel your workouts, active days or even a mid-day snack than with our matcha energy balls?

They're light, free from refined sugar and gluten-free. Vegans can also delight in these wondrous balls, result! The matcha adds such a lovely boost of antioxidants; you just can't go wrong here!

Read on to see just how easy it is, only needs a few pantry ingredients and a couple minutes to spare.

### Procedure:

Simply blitz up all the ingredients (leaving some chopped pistachios and desiccated coconut behind for coating the energy balls in) and roll into your desired size, remember, the bigger the balls, the more calories it's totally up to you.



## MANGO MATCHA CHEESECAKE

Who would like some Mango Matcha Cheesecake?

It is very simple to make, you just need a blender and there is no baking involved so you can't burn it! I used cashew nuts as the base so it is full of protein which means it is totally ok as a post workout breakfast!

Here is the recipe for a 20cm cake:

First soak 400g cashew nuts overnight. These are for the filling.

Base: 100g walnuts  
70g pumpkin seeds  
6 Medjoul dates  
1 tbsp coconut oil, melted  
1 tbsp Fruit Syrup

Whizz it all up in a food processor until finely chopped and press into a lined cake tin.

Matcha Layer:

200g soaked cashews  
4 tbsp lemon juice

2 tsp Matcha @heapwellsuperfoods

3 tbsp Fruit Syrup  
3 tbsp coconut oil, melted

Blend everything in a high speed blender until smooth.

Mango layer:

1 mango  
Remaining soaked cashew nuts  
6 tbsp coconut oil, melted  
4 tbsp Fruit Syrup  
2 tbsp lemon juice

Blend together as before.

Pour half of the mango filling on top of the base. Put into the freezer for 1 hour to set, then pour on the matcha filling and smooth the top. Freeze again and finally add the remaining mango filling and smooth the top. Freeze until firm. You can just refrigerate but I find it easier to get it out of the tin when frozen. Remove from the cake tin at least 30 mins before serving. I decorated with fresh mango, pumpkin seeds and Gipsophila.



## MATCHA & LEMON CUP CAKES

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Matcha Lemon cupcake anyone? Its taken some tweaking but here we have a perfect recipe.

### Ingredients:

250ml soya milk  
1 tbsp cider vinegar  
4 tbsp lemon juice  
60 ml oil  
125g sugar  
250g plain flour  
1/2 tsp salt  
3 tsp @heapwellsuperfoods Matcha  
1/4 tsp bicarbonate of soda  
Zest of 1 lemon

### Method:

First mix the cider vinegar into the soya milk to make vegan buttermilk.

In a bowl mix together the flour, matcha, salt, bicarbonate of soda and lemon zest. Add the lemon juice,

sugar and oil to the buttermilk and mix. Pour this into the flour mixture and beat until smooth. I use a balloon whisk. Spoon the batter into cupcake cases and bake at 180C for about 17 minutes or until a cocktail stick inserted in the middle comes out clean. Cool on a wire rack.

### Matcha buttercream:

500g icing sugar  
3 tsp Matcha  
160g dairy free spread  
1 1/2 tbsp lemon juice  
Zest of 1/2 lemon.

In a food mixer, mix the icing sugar, matcha and spread together. Add the lemon zest and juice and turn up the speed and beat until smooth and fluffy. Pipe onto your cupcakes.



## MATCHA SMOOTHIE BOWL

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### Ingredients

2 1/2 kiwis  
1 cup/90g green grapes  
1/2 dragon fruit - about 90g  
4 frozen bananas  
2 tsp Heapwell Matcha Green Tea  
1/4 cup almond milk  
1/4 cup yoghurt

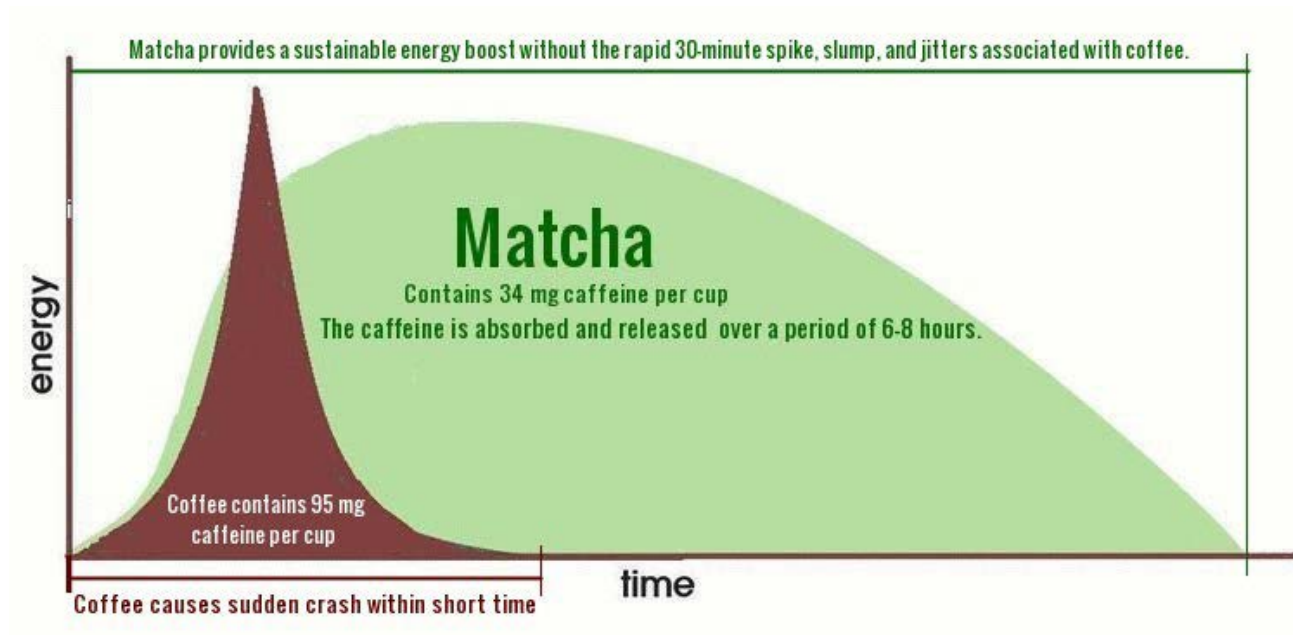
### Method

Chop the bananas and blend everything together.  
I topped with kiwi, grapes, coconut, dragon fruit stars and hemp seeds.

# MATCHA & CAFFEINE

## CAFFEINE

How differently our body absorbs caffeine from matcha than coffee.



*Matcha green tea has been used as a drink to enhance energy and concentration for over 800 years in Japanese culture, and today it's becoming increasingly popular in the west.*

A cup of coffee contains roughly 100mg of caffeine. In comparison, a bowl of matcha contains 25mg to 30mg of caffeine, which is 3 to 4 times less than in a cup of coffee.

However in tea and matcha this caffeine is called theine, and although it is exactly the same molecule as caffeine, the theine contained in matcha acts differently in our body





In matcha, theanine is associated with the tea's tannins, which delay its assimilation in our organism and thus has smoother effects over time than coffee.

This is why matcha has a stimulating effect that lasts from 4 to 6 hours, while coffee gives a shorter "boost" and then a "crash". If you use matcha properly, you can for instance avoid the afternoon slump. Drinking a cup of matcha at the end of the morning will limit or even eliminate this slump.

Drinking matcha allows you to increase your concentration and your vigilance over a long period of time without being agitated or feeling any kind of nervousness.

### More Caffeine

1 - 3 Hours of Energy



### Less Caffeine

4 - 6 Hours of Energy





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