



RECHARGE YOUR SPARK



orthoplex



Many of us will experience fatigue or low energy throughout our lives. While we all have short stints where we burn the candle at both ends, or have a few late nights in a row, low energy over an extended period of time can be a real problem. Difficulty concentrating, a lack of motivation, a lost desire to do things that previously brought you joy, and always being asked “if you’re feeling ok” isn’t fun in the short term and can be debilitating over the long term.

Energy is a complicated thing, and it’s not as simple as adding an extra shot to your morning coffee. It’s incredibly important to meet regularly with your healthcare practitioner about improving your energy levels over the long term.

All information and advice provided in this booklet is general in nature. Please consult your healthcare practitioner before undertaking any dietary changes or starting an exercise regime.

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WHAT EXACTLY IS “ENERGY”?

Energy is so much more than how much “get up and go” a person has. Our bodies use energy in the form of Adenosine Triphosphate (ATP); ATP is the main energy currency within our cells. This energy is required for all bodily functions, such as digestion, muscle contractions and nerve impulses to name a few.

While our bodies perform most of these functions subconsciously, we’re more likely to notice a lack of energy when it starts to interfere with our daily lives.

Some of the symptoms you might notice if you’re suffering from fatigue or low energy include:

- Constantly feeling sleepy or tired
- Frequent headaches
- Brain fog
- Frequently feeling dizzy or light headed
- Decreased mood and motivation (feeling irritated or frustrated)
- Sore or aching muscles, or general muscle weakness
- Impaired judgement (decision-making skills)
- Slower reaction times

None of these symptoms are fun to experience and can be problematic because of the ‘flow on effects’ they create. For example, brain fog could lead to poor performance at work; slow reaction times and impaired judgement is a dangerous combination when driving; and decreased mood can impact your relationships with those around you.



HOW DOES ENERGY WORK IN OUR BODIES?



The process starts with the food we eat. Put simply, we digest foods – carbohydrates, fats and proteins. The body preferentially uses carbohydrates for energy as they are easily converted to glucose in the body.

That glucose is transported to cells and converted to ATP in the mitochondria, otherwise known as the powerhouse of the cell. Dietary fats can also be used for energy when glucose levels are low. When the body has enough glucose, fats are stored in adipose tissue ready for those times of low carbohydrate availability.

While dietary proteins from meats, eggs and legumes are broken down into amino acids and absorbed into circulation, they are generally all used to produce new proteins in the body. However, excess protein can be converted to glucose and used to produce ATP if required.

WHAT IS GLUCOSE?

Glucose is a monosaccharide, a simple sugar, made up of only one kind of sugar molecule. In our modern world, following our modern diets, we are more likely to be consuming too many carbohydrates than too little. So the supply of glucose for energy production is adequate. The problem is that simple sugars from refined foods like white rice, pasta, bread, cookies and chocolate bars provide immediate, short term blood glucose spikes followed by lows. Complex carbohydrates from foods like wholemeal breads and pasta, brown rice and legumes provide nutrients and importantly, fibre which slows down digestion and, therefore, the release of glucose into circulation, providing more sustained blood glucose levels and energy production.

ALL-IMPORTANT INSULIN

Glucose is processed, stored and regulated in the body by a hormone called insulin which is produced and released by the pancreas. Without insulin, some cells would not be able to take in glucose from the blood stream, leaving them without the main substrate for producing ATP. If you think of your cells as little houses, insulin knocks on the door and glucose transporters open it, allowing glucose in.

If you have more glucose in your blood than is needed for your current level of activity and bodily functions, insulin stimulates the liver to store it as glycogen for future use.



PAMPERING THE PANCREAS

The pancreas performs many important roles within the body, being part of both the digestive and endocrine systems. However, the production of insulin is reason enough to pamper your pancreas!

Some people suffer from genetic abnormalities that can affect the performance of the pancreas, however there are several lifestyle factors that can cause the pancreas to underperform.

These include things such as:

- Smoking
- Alcohol consumption
- Being overweight

These factors may not come as a complete surprise, as all three have numerous detrimental effects on our health. To look after your pancreas (and your whole body!), avoid smoking, reduce your alcohol consumption, and make sure you aren't carrying excess weight.



EXERCISING FOR ENERGY

When you're experiencing low energy, exercise is likely the last thing on your mind. It may seem counter-intuitive, but that exercise that can feel as though it's wearing you out, can actually help to improve your energy levels.

As well as helping to mitigate the risk of carrying excess weight that can affect your pancreas, regular exercise helps to improve insulin sensitivity. When we exercise, our muscles require an increased amount of energy which as we know, comes firstly, in the form of glucose. This requirement for extra energy signals to the pancreas to increase insulin production and release, the effects of which can last for up to 24 hours after exercising, depending on the activity. We've included some exercises to get you started, later in this booklet!



STRESS LESS

If you've seen our *Mastering Your Mental Wellbeing* booklet, this won't come as a surprise. Our natural "fight or flight" response to stress increases the production of adrenaline and cortisol. These hormones increase the amount of glucose in the blood for instant energy (historically so we could run away from the physical threat). Long term stress means long term release of these hormones and chronic release of insulin. Eventually this leads to insulin resistance which is a fancy way of saying the glucose transporters get tired of opening the door to glucose and just ignores insulin knocking on the door. The result is excess glucose in the blood, and that causes a whole host of problems for the body.

CONSIDER CARBOHYDRATES

Carbohydrates are one of the main stimuli that cause a rise in blood glucose, and a subsequent rise in insulin levels. While you do need carbohydrates in your diet, it's important not to have too many of them, and to select the right kinds of carbohydrates.

Spread your carbohydrate intake throughout the day and choose complex forms over refined carbohydrates. We've included some recipes later in this booklet to get you started.



SEEK OUT SLEEP

Unsurprisingly, sleep and low energy go hand-in-hand. But your energy levels in relation to sleep go far beyond hitting the hay an hour earlier (although that might help!). Sleep gives our bodies a chance to repair itself and restore all your systems, including blood sugar regulation.

When it comes to sleep, it's not just quantity that is important, but also quality. Step back from the snooze button, and try to get some uninterrupted sleep, rather than fractured sleep.









SUBTRACT ADDED SUGARS

Wherever you can, cut back on sugars to avoid a spike in blood glucose. Foods like cakes, lollies and chocolates are obvious offenders, but added sugar can creep in when you least expect it. It is always better to stick to whole foods where possible, but where it's not, be sure to always check the nutrition label for added sugars which may go under a pseudonym such as fructose, corn syrup or sucrose.

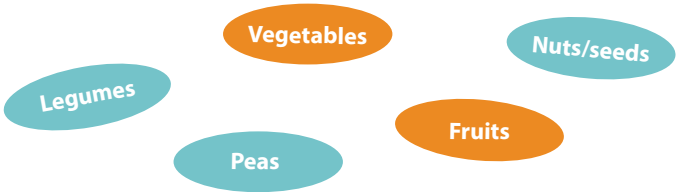


SWAP DON'T STOP

As we discussed earlier, your body needs carbohydrates for energy, however the type of carbohydrates you eat will affect your energy levels throughout the day. Swap these simple sugars for their complex carbohydrate counterparts to help regulate your blood glucose levels.

SWAP THESE			FOR THESE	
White bread		→	Wholegrain/brown bread	
Cookies		→		Fruit
Processed cereal		→		Rolled oats
Jam		→		Natural nut butter (no sugar added)
White rice		→		Brown rice

OTHER COMPLEX CARBOHYDRATES TO INCLUDE:



EATING FOR ENERGY

We've pulled together some of our favourite wholegrain recipes for you to try.

BROWN RICE SALAD

Whip this salad up on a Sunday night and take it to work the next day for a delicious lunch option.

Ingredients

- ½ cup organic brown rice
- 1 tablespoon sunflower seeds
- 1 tablespoon pumpkin seeds (pepitas)
- ¼ cup whole, organic, almonds (approximately 20 almonds)
- 3 zucchinis
- Small bunch spring onion (finely chopped)
- 100g** alfalfa sprouts
- ½ avocado
- Small handful mint leaves
- ¼ cup extra virgin olive oil
- 2 tablespoons lemon juice
- 1 tablespoon honey
- Salt and pepper to taste

Method

- 1 Cook rice according to packet instructions.
- 2 Toast the almonds, sunflower and pumpkin seeds until fragrant (you can do this in a fry pan or in the oven).
- 3 Coarsely grate 2 zucchinis, draining excess water.
- 4 Julienne remaining zucchini.
- 5 Add toasted seeds, almonds, zucchinis, spring onions and sprouts to the cooled rice and toss to combine.
- 6 Combine the olive oil, lemon juice and honey.
- 7 Add the dressing mixture to the rice mixture and combine.
- 8 Serve topped with avocado and mint leaves.



CHERRY TOMATO AND BEAN SALAD

This is another recipe that's easy to prepare in advance for a healthy option.

Ingredients

- 1 punnet organic cherry tomatoes (cut in half if you prefer)
- ½ red onion, finely chopped
- 1 tablespoon olive oil
- 1 tablespoon balsamic vinegar
- 1 can organic butter beans, drained
- 1 can organic cannellini beans, drained
- 1 tablespoon finely chopped chives
- ¼ cup organic feta

Method

- 1 Pre-heat oven to 180 (degrees Celsius).
- 2 Combine olive oil and balsamic vinegar and toss cherry tomatoes through the mixture.
- 3 Arrange the tomatoes on a roasting tray and roast for approximately 20 minutes or until they start to collapse.
- 4 Combine the roasted tomatoes, drained beans, red onion and chives in a large bowl. Serve topped with organic feta.



ROCKET PESTO ZOODLE “PASTA”

This delicious pesto is a healthier take on the traditional version. If desired, you can also serve with grilled chicken or an organic ricotta.

Ingredients

- 1 large organic capsicum, de-seeded and coarsely chopped
- 2 zucchinis
- 2 bunches of rocket, chopped coarsely
- 2 tablespoons roasted pine nuts
- 1 long red chilli, deseeded and coarsely chopped
- 1½ teaspoons lemon juice
- ½ tablespoon olive oil

Method

- 1 Pre-heat the oven to 200 (degrees Celsius).
- 2 Toss the capsicum in the olive oil, and arrange on a roasting tray.
- 3 Roast for 5-10 minutes or until tender.
- 4 Using a spiralizer, make the zoodles, pouring boiled water over them for a few minutes or until tender.
- 5 Place the capsicum, rocket, pine nuts, chilli and lemon juice into a processor and process until finely chopped and combined.
- 7 Gradually add reserved water to the rocket pesto until desired consistency is reached
- 8 Add the rocket pesto to the pasta and serve.



NUT BUTTER: CHOOSE YOUR OWN ADVENTURE

Nuts are high in protein and healthy fats, and are an excellent snack on their own. These nut butters can be spread over wholegrain bread, or a piece of fruit, such as apple or banana.

To make nut butter, roast the nuts in the oven on a high temperature for approximately 10 minutes, or until they've started to brown. Let the toasted nuts cool until they are warm, not hot.

Place the nuts in a food processor and process on a high speed until desired consistency is reached.

Remember to be patient when making your nut butter, the nuts will first chop very finely, then start to get oily and clump up before you start to see a nut-butter consistency. Stop the processor and scrape the mix from the sides every few minutes. Remember that if your processor or the mixture starts to get hot, wait for it to cool before continuing to process.

Nut Butter Base

- Almonds
- Brazil nuts
- Cashews
- Macadamias
- Walnuts



Optional additions

These are a few things you can add to your nut butter base to change the flavour, consistency or nutrient profile. Add whatever you would like after you have processed the nuts to the desired consistency and use your processor to combine.

- Cinnamon
- Celtic sea salt
- Maple or brown rice syrup (remember this is a sugar - so don't use too much)
- Chia seeds
- Hemp seeds
- Vanilla
- Cacao powder

DETOX VS DETOXIFICATION

The term “Detox” is one that usually has us thinking of juice cleanses, quick weight loss, or an immediate atonement for dietary or lifestyle sins committed. The truth of the matter is that there is no miracle drink or special pill that will undo the damage done by dubious lifestyle decisions.

Our bodies are incredibly efficient at metabolising and removing harmful toxins and substances. It is however, possible to aid your body’s natural process of detoxification.

The first, and most important thing you can do to help your body remove toxins, is to reduce the amount of toxins you are exposed to. This doesn’t just mean cigarettes and alcohol, but also artificial colours and flavours, excess sugar, the air you breathe and the products you put on your skin.

It is important to note here, that reducing or removing toxins for a short period of time will only help your body for a short period of time. Removing all the toxins from your environment is near impossible, and difficult to do in one fell swoop. Rather, opt for making small changes over time, and commit to those changes as a lifestyle, rather than a quick fix.



YOUR DAILY DETOXERS

There are several organs in our bodies whose primary function is to process and/or excrete toxins.

LIVER

The liver is one of the most important detoxifying organs in the body. It filters all blood and transforms toxins into a form suitable for excretion. For more tips on how to help your liver perform at its optimum, check out the booklet section "Love your Liver".

KIDNEYS

Our kidneys flush waste and toxins from the blood in the urine, after it has been filtered by the liver. To help your kidneys perform at their optimum, make sure you remain hydrated and drink plenty of water! Many people struggle to stay hydrated, and the easiest way to make sure you are drinking enough water is to look at your urine. We've included a urine chart in this booklet as a guide for what to look for.

COLON

Your large intestine, or colon, is responsible for removing waste products generated by the liver in the form of faeces. Making sure you are hydrated and eating enough fibre can help the process. Your colon is, however, full of important microbiota, so it is important to see your healthcare practitioner to check your microbiome health.

SKIN

Our skin is our largest organ and excretes waste through sweat. The first thing you can do to help your skin is to make sure you are well hydrated. Secondly, ensure you aren't directly exposing your skin to toxins. For example, make sure that if you are working with bleach or other chemicals, that you protect your skin appropriately with rubber gloves and clothing.

LOVE YOUR LIVER

Our liver is one of the main organs that our body uses to remove toxins from our system. Looking after it is incredibly important to reduce risk of disease, and to maintain healthy energy levels.

These are our 5 top tips to show your liver some love!

AVOID HIGHLY PROCESSED FOODS

Most packaged foods contain additives, colours and flavours which place extra burden on the liver to process and make into less harmful substances.

AVOID HIGH FRUCTOSE CORN SYRUP

Present in soft drinks and store-bought baked goods, consuming high amounts of fructose or high fructose corn syrup can result in an increased risk of non-alcoholic fatty liver disease which is becoming increasingly common.

EXERCISE REGULARLY

Regular exercise helps to burn excess glucose stores and regulates insulin production which can help to take some of the pressure off your liver.

USE NATURAL CLEANERS

Where possible, swap commercial cleaning products for the natural kind eg. vinegar and essential oils.

AVOID CIGARETTES AND ALCOHOL

Everybody knows smoking is bad for your health. Avoid smoking and be mindful of secondhand smoke when you are out and about. For a lot of people, completely cutting out alcohol is out of the question, however every drink you don't have is doing your body a world of good.



EXERCISING FOR ENERGY

Exercising during a period of low energy can be a struggle, but moving your body regularly is incredibly important for your overall health and can actually increase your energy levels.

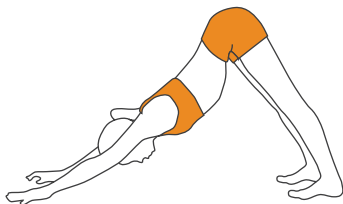
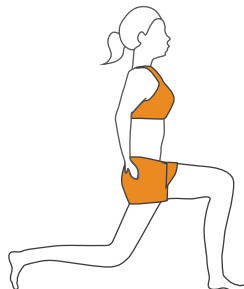
Exercising in the morning can help lift your energy level for the rest of the day. Even if you're not an exercise person, it's still important to get moving. These are a few simple stretches and exercises you can do first thing in the morning to help support your energy. They do not require any equipment, and take just a few minutes, so all you have to do is avoid that last hit of the "snooze" button.

Even going for a 20-minute walk as soon as you wake up can make a huge difference to your energy levels throughout the day, but if you're not quite there yet, this could be a place to start.



LONG LUNGE

From your downward dog position, step one foot forward so it is next to your hand. Bend your knees and slowly lower yourself into a lunge position, pushing your hips forward and stretching out through your hips. Hold for a few breaths and then repeat on the other side.

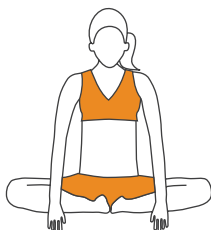
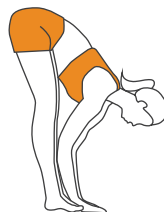


DOWNWARD DOG

This yoga pose is brilliant for beginners and works almost your whole body, strengthening while providing a gentle stretch. To boost the energy benefits of this pose, start in the position and slide your torso forward into a plank position on the inhale and back again on the exhale.

FORWARD FOLD

Coming out of your lunge, stand with your feet hip width apart, and slowly fold down, allowing your arms and head to hang towards the ground briefly. It doesn't matter if you cannot touch the floor as long as you try to keep your back flat and aim your buttocks up to the ceiling.



HIP OPENER

Sitting on the floor with your back straight, bring the soles of your feet together, and lower your knees towards the floor as much as you can. Holding your ankles, lean your head and shoulders back as you inhale, and fold your chest towards your feet as you exhale. Repeat for a few breaths.

CIRCADIAN RHYTHM

You might have heard the term “Circadian Rhythm” thrown around from time to time, but do you know exactly what it is?

Put simply, your circadian rhythm is an internal clock, also known as your sleep/wake cycle. Your circadian rhythm is controlled by part of your brain called the hypothalamus which releases the hormone melatonin, and that makes us sleepy. Historically, this internal clock exists to determine the sleeping and feeding patterns that best suit us as humans.



HOW DOES IT AFFECT ENERGY LEVELS?

Your circadian rhythm can affect the quality and duration of your sleep and play a very direct role in managing energy levels.

WHAT CAN AFFECT YOUR CIRCADIAN RHYTHM?

For most people, the circadian rhythm reflects the sun's movement around the earth in a 24-hour cycle. Our modern lifestyles expose us to a number of factors that can cause our circadian rhythm to change; and indeed, for people such as shift workers, it's important to be able to regulate and manipulate the circadian rhythm.

SHIFT WORK

Shift work can wreak havoc on your circadian rhythm for two main reasons. Firstly, working through the night when your body is programmed to sleep, and secondly, rotating rosters which prevent the establishment of a consistent sleep-wake rhythm.

JETLAG

Ever wondered why you feel sleepy for the first few days when travelling overseas? Travelling overseas or between different time zones disrupts your sleep-wake pattern and will confuse your circadian rhythm as it adjusts to new day/night times.



SLEEP PHASE DISORDER

There are two forms of Sleep Phase Disorder: Delayed Sleep Phase Disorder (DSP) and Advanced Sleep Phase Disorder (ASP). DSP is arguably the more debilitating of the two as it prevents the sufferer from falling sleep until the early hours of the morning. ASP causes sufferers to wake up much earlier than they would like to, making them sleepy early in the night.



IRREGULAR SLEEP-WAKE RHYTHMS

Setting regular bedtimes and wake up times works wonders for your circadian rhythm. Irregular patterns can cause your circadian rhythm to drift later and later, leaving you with lower energy levels throughout the day.

7 WAYS TO SCORE SOME SHUT-EYE

For some of us, getting to sleep, and staying asleep, is a huge challenge. Sleep is a very complicated, sometimes elusive thing, so it is always important to speak to your practitioner to address the underlying cause, but here are a few tips and tricks to start with.

SWITCH OFF

Blue light is notorious for interrupting sleep patterns, but did you know that all artificial light has the potential to influence sleep patterns? Living only by the light of the sun isn't practical for our modern lifestyles, but we can mitigate the impact artificial light has on our sleep to an extent.

For 30-60 minutes before bedtime, switch off the TV and stop scrolling on your phone or tablet. If you absolutely must use these devices in that timeframe, try turning down the brightness, or switching to "night mode".

BEAUTIFY YOUR BEDROOM

Your sleeping environment can have a big impact on how easily you fall asleep. Minimise external noise and light wherever you can, and make sure your bedroom is clean and clutter-free. Another factor that can come into play is your bedroom temperature; studies have shown that most people sleep best in a room that is around 20°C.

Invest in bedding that suits you, make sure your mattress and pillows are right for you, and support a comfortable night's sleep.



CURB YOUR CAFFEINE

Cutting down on your caffeine intake can do wonders for your sleep. It's easy to get sucked into a cycle of too much caffeine which then affects your sleep, making you crave more of it the next day, and so on and so forth.

If you must have your daily coffee, try to have it in the morning, far away from bedtime. Be mindful of the amount of caffeine in tea as well and opt for herbal tisanes in the afternoon and evening instead of black or green teas.

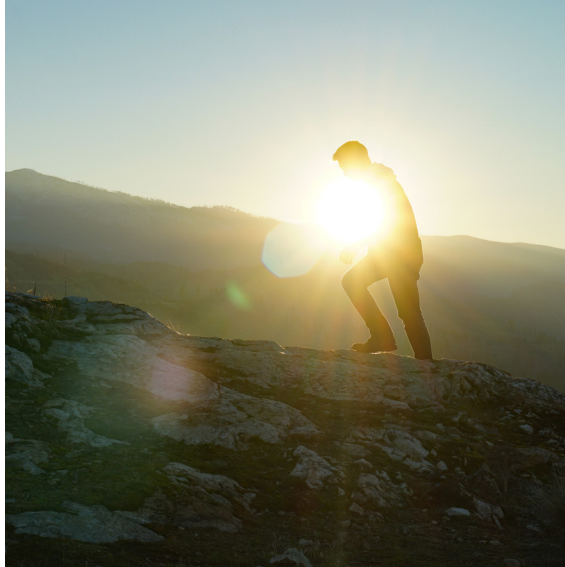


SEEK OUT SUNLIGHT

Natural sunlight can work wonders for our bodies, especially our circadian rhythm. Try to get outside and enjoy some sunshine every day, just make sure you adequately protect your skin. Head out for a walk on your lunch break, or even just eating your lunch outside exposes you to natural light which can improve daytime energy and helps you get to sleep faster at night.

STICK TO A SCHEDULE

This one might be tricky for shift workers but maintaining a consistent sleep-wake cycle can help condition your body and result in higher energy levels during the day, and a better sleep at night. Set your alarm for the same time every day and use whatever reminders and routine you need at night to help keep your sleep cycle consistent.



AVOID ALCOHOL

Just in case we needed another reason to lose the booze, alcohol has been shown to negatively affect sleep. Sleep apnea, snoring and disrupted sleep patterns can all be exacerbated by alcohol consumption. Alcohol can also disrupt your body's production of melatonin.

BALANCE YOUR BREATH

When you're tossing and turning, it can be very easy for your mind to wander, keeping you awake far longer than desired. Relax by focusing on your breath, and make your "out" breath longer than the "in" breath, and hold your breath in for a few seconds. Start with breathing in for 4 counts, holding for 2 and breathing out for 5, gradually increasing if you can. The actual duration of each stage of the breath depends on your personal preferences, but the theory remains the same, just find what works for you.

TAKE A MOMENT

We already know that stress can impact on quality sleep, causing fatigue. It may sound counterintuitive to learn to relax (doesn't it just come naturally?) but it is so important for your overall wellbeing to take some time for yourself, switch off and relax.

SOAK INTO SERENITY

When we get into a warm bath and soak ourselves, blood flow to our skin increases, and our bodies release endorphins, like when we feel the sun on our skin. A warm bath helps to relax our muscles, and encourages us to breathe deeply.

Light some candles, put some soothing music on, switch off your phone and relax with some of these DIY bath soaks.



Start with:

- 1 cup Epsom salts
- ¼ cup baking soda
- ¼ cup sea salt

Choose your scent

8-10 drops **lavender essential oil** (optional: add a handful of fresh lavender if you have it)

5 drops **lavender essential oil** + 5 drops bergamot essential oil

5 drops **lemon essential oil** + 5 drops rosemary essential oil

SIP AWAY THE STRESS

Making a cup of tea can be quite therapeutic in itself, but there are a few herbal blends that can help you relax, reduce stress and encourage a more restful night's sleep.

PEPPERMINT OR SPEARMINT TEA

Peppermint and spearmint tea are naturally caffeine free, and as a bonus, contains a compound called menthol which is a natural muscle relaxant.

CHAMOMILE TEA

A well-known and commonly used herbal tea, chamomile does not contain caffeine and may help to relieve stress and sleeplessness.

LEMON BALM TEA

Lemon balm tea is a caffeine-free herbal tea that may help to promote calmness, reduce anxiety and stress and support a restful sleep.

LAVENDER TEA

Lavender tea is caffeine free and may help to soothe restlessness, anxiety and insomnia. And it smells amazing too!

PASSIONFLOWER TEA

Passionflower tea is a natural sedative for the nervous system and a great caffeine free way to reduce anxiety and stress and support a relaxing deep sleep.

GREEN TEA

Green tea is not a herbal tea, and does contain caffeine, so it's best to have your green tea in the morning. Green tea contains a nutrient called L-theanine which helps you relax and reduces stress. Green tea is a good substitute when trying to reduce your black tea and coffee intake.





orthoplex
white



orthoplex
blue



orthoplex
green

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