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Welcome

TO THE Nourishing Therapies LOW SULFUR TRIAL

Sulfur is the third most abundant mineral element in the body and is essential to life.

Some people have issues converting the sulfur from food to organic sulfate, the form that can be utilised by your body to do many important functions.

If this conversion is not working, not only will you be deficient in sulfate (which can lead to leaky gut, hormonal imbalances, detox issues & so much more), but there are two main by-products that can be produced instead that can cause many health issues:

- Hydrogen sulphide (H2S)
- Sulphite (SO3)

For this reason, it's worth trying a diet low in sulfur to see if you have a sulfur intolerance.









High sulfur foods and supplements (see list below) will be strictly avoided for a seven to ten day period.

Seven days allows the effect of the last ingestion to wear off. The negative effects of sulfur occur over a 4-7 day period after the last sulfur ingestion, which means you need to exclude all sulfur foods AND sulfur supplements for at least a week before you know what is going on.

Many people will notice a reduction of their symptoms within a few days, but for some, symptoms may actually worsen in the first few days, so it's important to keep going at least 1 week.

Although 7 days is often enough, we recommend avoiding high sulfur foods for up to 2 weeks before trying a reintroduction.

We have provided you with a list of low sulfur recipes to help you with the elimination process. See recipes at the end of this guide.

High Sulfur Foods

Animal protein is the largest source of dietary sulfur, which comes in the form of cysteine and methionine. For this reason, we will reduce the consumption of animal protein during the low sulfur trial.

Although we have provided you with a full list of foods and supplements high in sulfur (see below), it's useful to know that the most common problematic foods for people with sulfur intolerance are the ones listed below. If you find the long list overwhelming, then try only avoiding the most common triggers. This can be enough for about 80% of people.

Garlic is without question THE most common trigger and needs to be avoided STRICTLY during the elimination. Garlic is in a lot of processed foods and even a very small amount can be problematic for some, so be careful.

MOST COMMON HIGH SULFUR TRIGGER FOODS:

- Alcholol
- Garlic
- Onion
- Broccoli
- Eggs
- Cauliflower

- Asparagus
- Cabbage
- Kale
- Spinach
- Dairy









High Sulfur Veggies

Here is a more complete list of foods that you can eat during the low sulfur trial (YES) and should avoid (NO). Also please note that the foods in the 'YES' section with an '*' next to them are high in FODMAPs or potential triggers for other reasons and should be eaten in moderation.

YES	NO
Avocado * Beetroots * Capsicum Carrots Celery Cucumbers Eggplants* Fennel Light coloured lettuce Parsnips Potatoes* Pumpkin Squash (butternut, acorn, spaghetti, etc) Sweet potatoes* Tomatoes* Zucchini	ALLIUM FAMILY: Garlic** Onions** Leeks CRUCIFEROUS: Kale** Arugula Broccoli** Cauliflower** Cabbage** Brussel sprouts Radishes (inc Daikon & Horseradish) Bok Choi Turnips / Swedes /Rutabaga DARK LEAFY GREENS: Spinach** Collard / silver beet Mustard greens OTHER: Asparagus** Green beans Peas

^{*} Potential trigger for other reasons than sulfur. Limit consumption.

^{**} Tend to cause the most reactions for people with sulfur intolerance.

High Sulfur Fruits

Most fruits are low in sulfur, except papaya and pineapple.

Avoid dried fruits as most contain sulfite.

YES	NO
Avocado* Apple* Banana* Berries Cherries* Citrus fruits Grapes Kiwi Grapefruit Mango* Melon Nectarines* Peaches* Plums*	Papaya Pinneapple Dried fruits (Sulfite)**

^{*} Potential trigger for other reasons than sulfur. Limit consumption.

^{**} Tend to cause the most reactions for people with sulfur intolerance.

Other High Sulfur Foods

As mentioned, all animal products are high in sulfur and should be kept to a minimum during the low sulfur trial. However, most people, even if sulfur intolerant, are able to bring those back in with no issues.

All grains should be avoided, except white rice if you know you can tolerate it.

Nuts and seeds are best avoided during the trial because they are triggers for many people with digestive issues. However, we have listed below the best ones to consume and avoid on a low sulfur diet.

YES	NO
GRAINS: White rice, if tolerated* NUTS & SEEDS: Macademia* All seeds (EXCEPT sesame) DAIRY: Butter MEAT & FISH: Dark meat chicken / turkey Salmon/ fatty fish Sardines Oysters	GRAINS Quinoa** Oats Buckwheat All other grains NUTS & SEEDS Walnuts Peanuts** Sesame (Tahini) DAIRY Milk/ cream / cheese Whey protein MEAT & FISH All meat & fish are high sulfur, see best option on 'YES' column OTHER: Eggs ** All legumes Tofu Chocolate

^{*} Potential trigger for other reasons than sulfur. Limit consumption.

^{**} Tend to cause the most reactions for people with sulfur intolerance.



Wine contains sulfur in the form of sulfite. Even wines with no added sulfite will contain some naturally occuring sulfite and are best avoided during the trial.

We recommended avoided all alcohol during the trial, but if you must have a drink, opt for a clear spirit such as gin or vodka.

Coffee and tea (except herbal tea) are also best avoided during the trial. However, fear not, most people can tolerate a small amount of those even if sulfur intolerant.

YES	NO
Herbal tea * Filtered or bottled water	Wine** Cider Beer (IPA is worse) Cocoa Tea (black & Green) Coffee Well water (may be high sulfur)

^{*} Potential trigger for other reasons than sulfur. Limit consumption.

^{**} Tend to cause the most reactions for people with sulfur intolerance.

Supplements to avoid

Many popular supplements, especially 'detox', supplements contain sulfur.

Some of the supplements listed below, although not high in sulfur, can influence sulfur metabolism in other ways and should be avoided during the trial.

YES	NO
All other	SULFUR CONTAINING NAC MSM L-Methionine Glucosamine or chondroitin sulfate Taurine Gluthathione DMSA & DMSO Alpha Lipoic Acid Milk Thistle Detox supplements Garlic extract OTHER SUPPLEMENTS TO AVOID Glycine SAMe Betaine HCL Chlorella Turmeric





Once you have eliminated the high sulfur foods for up to 2 weeks, two main outcomes can happen:

NO IMPROVEMENT

After the elimination, if you do not notice any change in your symptoms, then sulfur intolerance is unlikely.

DEFINITE IMPROVEMENT

For people with a sulfur intolerance, the improvement in symptoms will often be quite dramatic. Better digestion, improved mood and cognition, less pain, better energy, improvement in skin conditions, etc.

If you're feeling better, it's highly likely that you have a sulfur intolerance. The good news is that you don't need to continue avoiding all sulfur foods. Remember, sulfur is essential to life, so long term avoidance is not recommended.

It's also worth noting that most people will find that they mostly react to just a few foods on the list. That's why the next step is a reintroduction.





To test your tolerance to various sulfur foods, we recommend introducing one sulfur food at a time every two days. However, if you have a reaction to one of the sulfur foods during the reintroduction, wait until you are back to feeling good before testing the next food.

Although meat and fish are high in sulfur, not many people react to these, so we recommend introducing these first.

After that, here is the order we recommend. However, if you already know that you react to some of these foods, do not introduce them.

- 1. Garlic
- 2. Onion
- 3. Eggs
- 4. Kale
- 5. Broccoli
- 6. Cabbage
- 7. Cauliflower
- 8. Asparagus
- 9. Spinach
- 10. Alcohol
- 11. Dairy





We recommend that you have regular Epsom Salt Baths during the low sulfur trial.

Epsom salt contains magnesium and sulfate in a form easily absorbed by the body, bypassing the digestive tract.

As you won't be eating much sulfur, it's important to get it in the body in another way, as it's such an important element in the body.

Also, we won't go into details right now, but let's just say that people who are sulfur intolerant are actually deficient in sulfate (it's complicated!), the form that your body can utilise for many important functions in the body.

Simply add 4 cups of Epsom salts to your bath water and soak for at least 20 minutes.





The low sulfur trial is a great way to find out if sulfur intolerance is partly, or solely, responsible for your symptoms.

However, you do not need to avoid all sulfur forever. In fact, that would be a very bad idea.

Instead, working on rebalancing your gut bacteria and reducing toxicity will go a long way to improve your tolerance to sulfur foods.

There are various other supportive supplements and tools that we can discuss once we know if sulfur is likely an issue for you or not.





The following recipes are all low in sulfur and are also low in FODMAPs.

If you KNOW that a certain food is not right for your body, then please omit it. But do not swap any of the ingredients for something else, unless it is allowed on the low sulfur food list provided above.

NOTE:

You're going to need some chicken broth for some of the following recipes. The first recipe you'll therefore see is our Quick Chicken Broth. It's quick, it's simple and it can be used as a base for many other recipes and can also be enjoyed on it's own.





Quick Chicken Broth

INGREDIENTS

- 2 sticks of celery, cut in half
- 2 large carrots, cut into chunks
- 1 bay leaf
- 1 tsp thyme
- 1 tsp sage
- 1 kg chicken bones (organic if possible). Ask your butcher for chicken marrow bones (optional)
- 1 tsp high quality sea salt (we like Selina Naturally Makai Pure Sea Salt).
- 3 4 litres filtered water













Quick Chicken Broth

INSTRUCTIONS

- 1. Place all ingredients in a large pot and bring to the boil. Reduce heat, cover and simmer for 2-4 hours.
- 2. Using a pair of tongs, remove most of the bones and chunks of vegetables from the broth. Strain the stock through a large mesh sieve into a large bowl. Discard any bones and vegetables.



Store in 1-2 cups mason jars (or other glass storage) or silicone molds (such as souper cubes).

Keep some in the fridge for immediate use and some in the freezer for later.













Carrot Soup

INGREDIENTS

- 3 tbsp extra-virgin olive oil
- · 4 big carrots, cut into chunks
- ½ tsp cinnamon
- 1/4 tsp nutmeg (optional)
- 4 cups chicken broth (homemade only)
- 1/2 cup additive free coconut milk or cream
- · Sea salt and pepper to taste

- 1. In a large pot, add the olive oil, carrots, cinnamon and nutmeg, and sauté for 3 to 5 minutes, stirring the mixture frequently.
- 2. Add the broth and bring the soup to a boil, then turn the heat down and simmer, partially covered, for about 20 minutes until the carrots are tender.
- 3. Remove the pot from the heat. Blend the mixture with a stand mixer or in the blender.
- 4. Add the coconut milk.
- 5. Season with salt and pepper.
- 6. If serving immediately, return the soup to a burner set on low heat until warm.
- 9. Serve and enjoy!

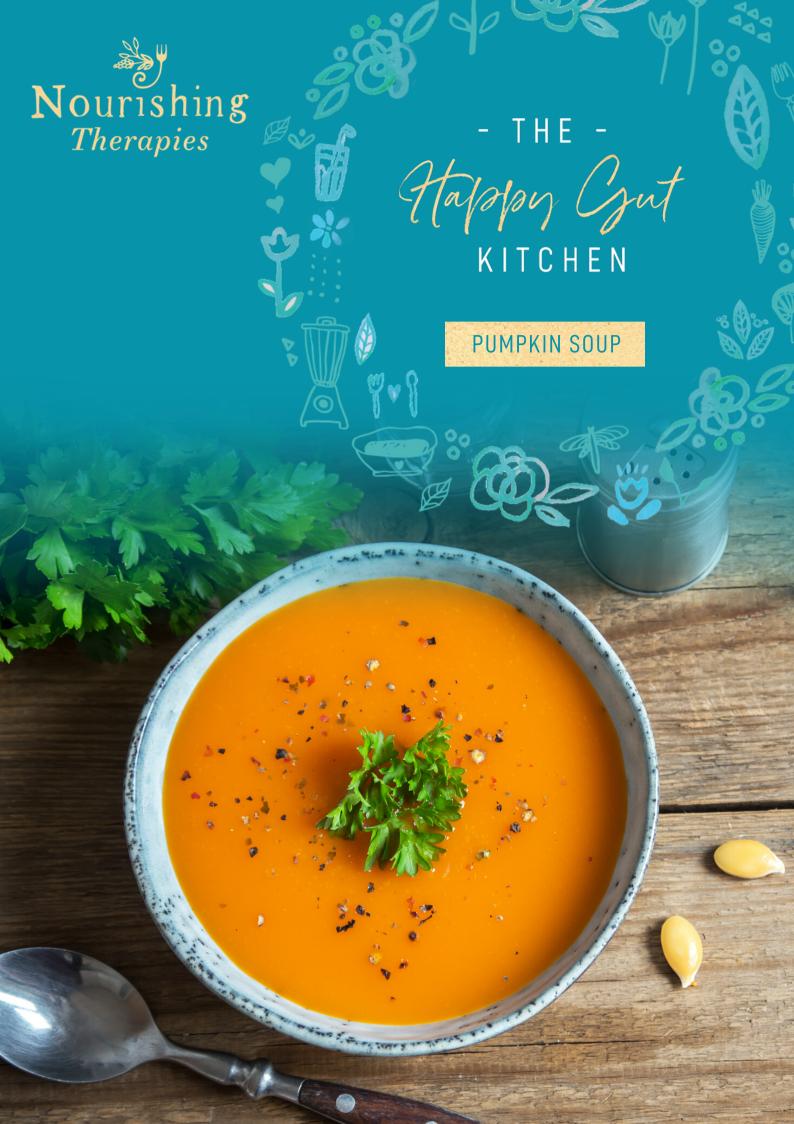












Pumpkin Soup

INGREDIENTS

- 3 tbsp extra-virgin olive oil
- 1 knob fresh ginger, grated or 2 tsp dry ginger
- 1.5 kg pumpkin (about half medium pumpkin), peeled, seeded and cut into chunks.
- 2 good handfuls of parsley
- · 4 cups chicken or beef broth
- · Sea salt and pepper to taste

- 1. In a large saucepan, heat the olive oil until warm.
- 2. Add the grated ginger and fry gently until fragrant, 1-2 mins.
- 3. Add the pumpkin and sauté for 3 to 5 minutes, stirring often.
- 4. Add the broth. If needed, add a bit more water to cover the pumpkin.
- 5. Bring the soup to a boil. Turn the heat down and simmer, partially covered, for about 20 minutes, until the pumpkin is tender.
- 6. Add the parsley.
- 7. Remove the pot from the heat and blend everything together.
- 8. Season with salt and pepper. Serve and enjoy!











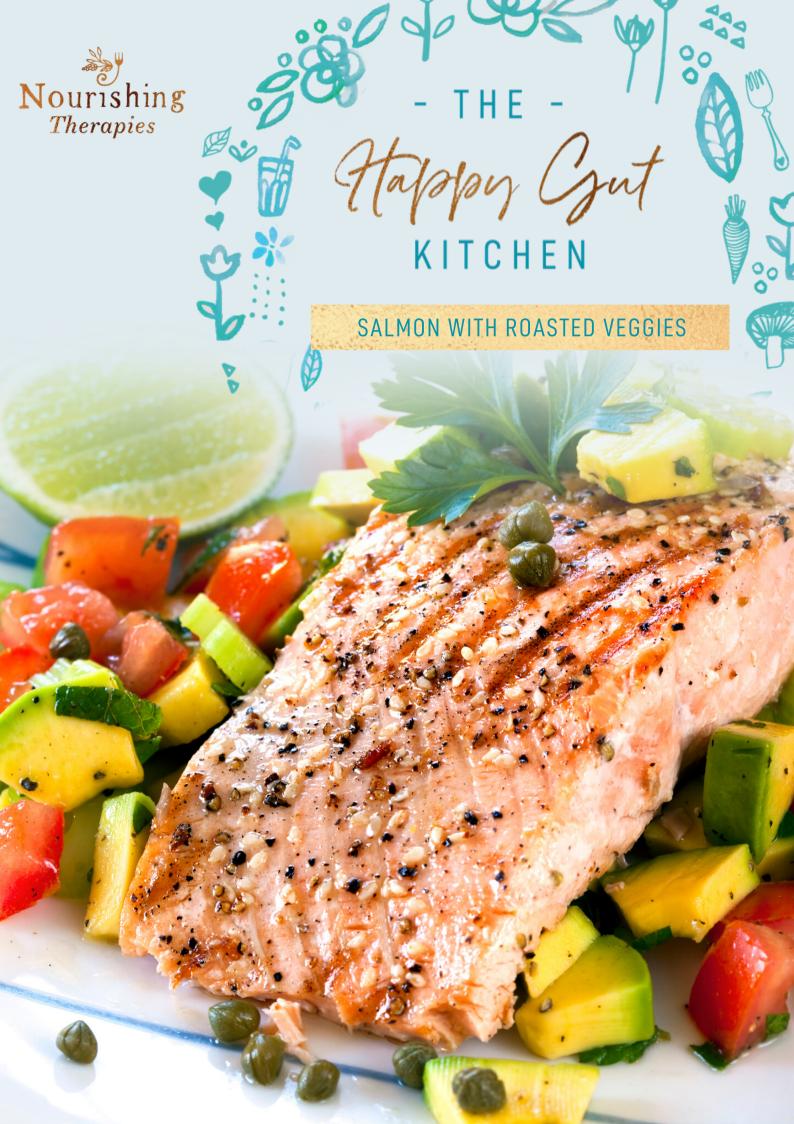




INGREDIENTS

- 2 tbsp of rice or pea protein powder (about 20 grams of protein)
- 1 tbsp of oil (flaxseed or hemp oil are really good options)
- 1 handful of frozen berries
- Half a very ripe banana
- ½ to 1 cup rice milk

- 1. Put all ingredients into a blender.
- 2. Blend until smooth. If needed, add more liquid to get your desire consistency.



Salmon ROASTED VEGGIES

INGREDIENTS

- 2 pieces of salmon, skin on (1 per person)
- Olive oil
- 1 zucchini, roughly sliced
- 1 fennel bulb, sliced about 1 cm thick
- About 12 cherry tomatoes
- 1 tbsp capers
- 1 handful parsley, finely chopped
- A generous knob of butter or ghee
- 1 lemon

INSTRUCTIONS

Roasted veggies:

- Preheat oven to 190C.
- Spread the veggies in a roasting tray with the capers.
- Splash generously with olive oil and season well.
- Roast for 45 minutes to 1 hour, until very soft.
- Before serving, add the parsley and a squeeze of lemon

Salmon:

- Rub with olive oil and season with salt and pepper.
- Put a non-stick pan (cast iron is best, avoid Teflon) on the stove and put the salmon, skin side down, in the cold pan.
- Heat the pan to medium heat. Cook for about 6 minutes.
 Once you can see that it's cooked about ¼ of the way,
 turn on the other side and cook for another 2 to 4
 minutes. You want the middle to still be nice and pink.
- Add a squeeze of lemon and serve with the roasted veggies



Salmon ORANGE & FENNEL SALAD

INGREDIENTS

- A tin of wild Alaskan salmon or smoked salmon. You could also use cooked salmon fillet
- Mixed light coloured lettuce leaves, about 4 cups, thinly sliced
- 1 orange, segmented or cut into bite sized pieces.
- Very finely chopped raw fennel. You could also use roasted fennel.

INSTRUCTIONS

- 1. Mix everything together in a bowl.
- 2. When ready to serve, drizzle generously with lemon and mustard dressing.









LEMON AND MUSTARD DRESSING

- · 2 tsp mustard
- 4 tsp honey or maple syrup
- 2 tbsp lemon juice
- 1/2 cup extra virgin olive oil
- · Salt and pepper

Put all the ingredients in a glass container with a tight-fitting lid. Shake vigorously until well combined.





INGREDIENTS

- 25g each of basil and parsley
- 50g of a mix of macademia and sunflower seeds
- 1/2 cup good quality extra-virgin olive oil

INSTRUCTIONS

- 1. Optional: soak the macademia and sunflower seeds for about 3 hours with a tsp of salt. Drain and rinse well. This will make them easier to digest.
- 2. Put everything in your food processor except the oil and whizz until everything is fairly coarsely chopped.
- 3. With the machine running, slowly pour in the oil until you get a soft green mixture that is not too oily.
- 4. Taste and then add salt and pepper to taste.

Note: Keeps in the fridge for a few days. Freeze any extra in in ice cube tray for later.









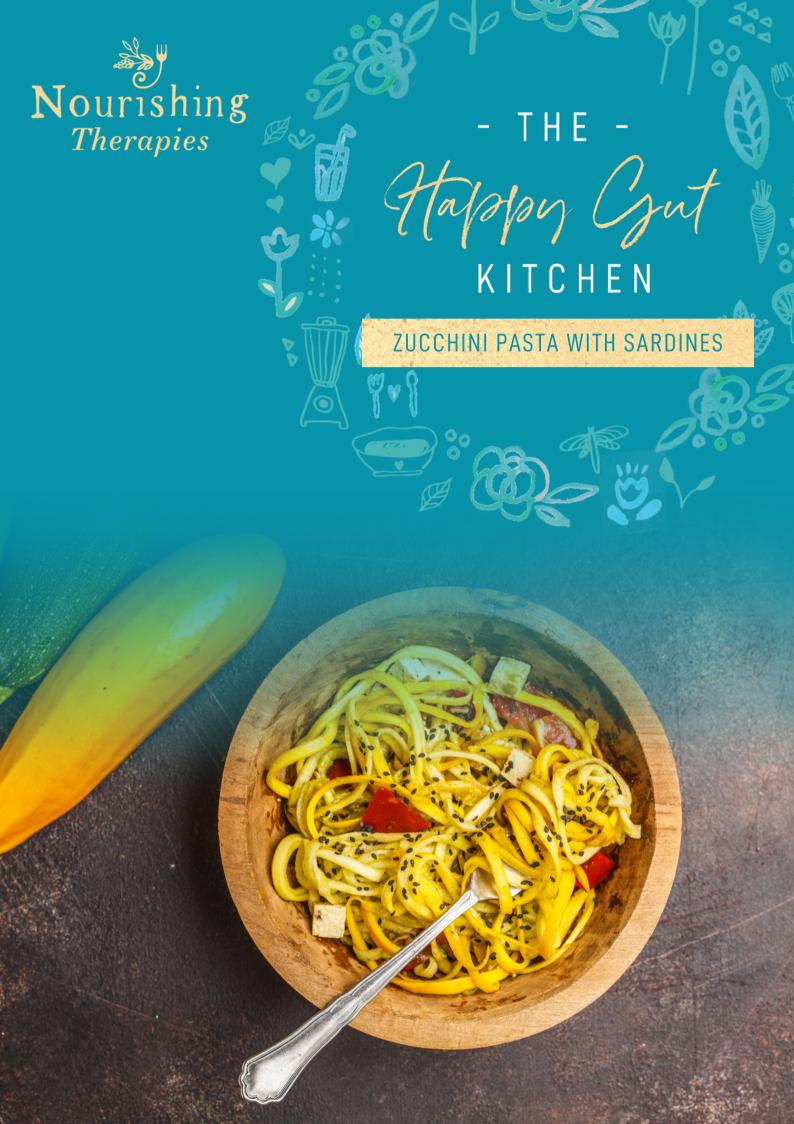


Zucchini & Pesto SALAD

INGREDIENTS

- 2 medium zucchini (1 per person)
- Already made Pesto (see recipes above)
- 1 tbsp capers
- 1/2 avocado
- 1 cucumber, julienned

- 1. If you are lucky enough to own a spiralizer, than use it to make your noodles with the zucchini.
- 2. If you do not have one of those amazing machines yet, consider getting one! But in the meantime, here is a technique you can use to make noodles:
- Remove stem tops.
- Using a vegetable peeler, scrape strips off the entire length of each zucchini. You can also do this with a mandoline.
- . Keep peeling until the entire zucchini is in shreds.
- You can use like this (thick noodles), or cut into smaller noodles by hand.
- 3. To assemble:
- Put the zucchini noodles in a bowl.
- Add the pesto and gently mix through the noodles
- Add the capers, avocado and cucumber on top.





INGREDIENTS

FOR THE NOODLES:

• 1 to 2 medium zucchine (about 1 medium zucchini per person

FOR THE SAUCE:

- 3 tbsp olive oil
- 1 punnet of cherry tomatoes, cut in half
- 1/2 tbsp capers
- A generous splash of broth (use fish or vegetable broth if you have some, otherwise chicken broth will also work).

TO SERVE:

- Tin of good quality sardines
- Squeeze of lemon

Zucchini Pasta WITH SARDINES

- 1. Preheat the oven to 100c.
- 2. If you are lucky enough to own a spiralizer, than use it to make your noodles with the zucchini.
- 3. If you do not have one of those amazing machines yet, consider getting one! But in the meantime, here is a technique you can use to make noodles:
- Remove stem tops.
- Using a vegetable peeler, scrape strips off the entire length of each zucchini. You can also do this with a mandoline.
- .• Keep peeling until the entire zucchini is in shreds.
- You can use like this (thick noodles), or cut into smaller noodles by hand.
- 4. Put the noodles into a colander over a bowl and sprinkle generously with salt. Leave for about 5minutes. Squeeze the noodles to get as much of the water out as you can. This step is optional but will help draw some of the water out
- 5. Pile the zucchini noodles on a buttered baking sheet and cook in the oven for about 25 minutes. The objective of the low temperature is to cook the zucchini noodles while evaporating as much of the excess water as possible.
- 6. While the zucchini is cooking, make the sauce:
- Heat the olive oil in a pan on medium heat.
- · Add the tomatoes, capers, and broth.
- Cook for 15 to 20 minutes.
- 7. Serve the noodles topped with the sauce, a few sardines and a generous squeeze of lemon.



Chicken Stir Fry

INGREDIENTS

- 2 tbsp olive oil
- 2 chicken breasts, cut into thin strips
- 1/2 fennel bulb, thinly sliced
- 1 zucchini, julienned or thinly sliced
- 1 capsicum, julienned or thinly sliced
- 1 handful parsley, finely chopped
- 1 stalk lemongrass, lower third finely sliced (hit it a few times with the back of the knife first to release the essential oils)

FOR THE SAUCE:

- 2 tbs tamari sauce
- 1/4 cup chicken broth
- 1 tsp maple syrup
- 1 inch piece of ginger, peeled and grated or finely minced

Chicken Stir Fry

- 1. Prepare the sauce by mixing all ingredients together in a bowl.
- 2. Heat wok over high heat for about 1 minute.
- 3. Add 1 tbs oil and swirl it around the wok to coat the entire cooking surface and heat for 30-60 seconds or until very hot.
- 4. Add the chicken strips and stir-fry for 1-2 minute or until the chicken is sealed and just cooked through.
- 5. Transfer the chicken to a plate and set aside.
- 6. Add another the oil to the wok and heat over high heat until hot.
- 7. Add the fennel, zucchini, capsicum and lemongrass and cook for about 2 minutes.
- 8. Add the sauce.
- 9. Cook for another 1-2 minutes until the sauce thickens a bit.
- 10. Return the chicken to the wok and cook for another 1-2 minutes.
- 11. Add the parsley.
- 12. Serve immediately. Enjoy!









