

# THE FRANCIS PROJECT - HOW

## MICROBIAL MAGIC, PANCAKES AND PIZZA

### Introduction

Welcome to the Francis Project. Thank you for participating.

<p style="text-align: center;"><b>Box 1</b></p> <p><b>You Should Have:</b></p> <ul style="list-style-type: none"> <li>• 1 jar of bubbly goop – Sourdough starter. If you are local to Wells, Somerset – we can give you Starter. If not, there will be somewhere near you who has some to enable you to begin this magical project.</li> <li>• If you can't get hold of a starter, go to the Appendix and make your own!</li> <li>• Ideally, you would start the Francis Project within 3-4 days of the date you get or make your starter to avoid starving your bacterial pets to death before you even start the project!</li> <li>• Handout -Why – The Science</li> <li>• Handout How – The Instructions - you are reading these now!</li> </ul>	<p style="text-align: center;"><b>Box 2</b></p> <p><b>General Items You Will Need:</b></p> <ul style="list-style-type: none"> <li>• Approx 1.5kg strong white bread flour in total (Good Earth in Wells sell Stoates Organic)</li> <li>• Olive oil</li> <li>• Warm water (body temperature – approx. 38 degrees C)</li> <li>• A warm room 22-25 degrees C (use the airing cupboard if your house is cold or a picnic box with a hot water bottle in it?)</li> <li>• A large mixing bowl</li> <li>• Weighing scales</li> <li>• A wooden spoon</li> <li>• Clean tea towels</li> <li>• 3 clean, empty medium-sized jam jars with clean lids</li> </ul>
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<p style="text-align: center;"><b>Box 3</b></p> <p><b>Ingredients for Pancake Recipe:</b></p> <ul style="list-style-type: none"> <li>• 120g of Sourdough Sponge – see later!</li> <li>• 3 large eggs</li> <li>• 170ml milk</li> <li>• 2 pinches of salt</li> <li>• 100g strong white bread flour (normal plain flour is fine too).</li> </ul>	<p style="text-align: center;"><b>Box 4</b></p> <p><b>Ingredients for Pizza Recipe – makes 4 pizzas:</b></p> <ul style="list-style-type: none"> <li>• 170g of Sourdough Sponge – see later!</li> <li>• 835g of strong white bread flour</li> <li>• 17g of salt</li> <li>• 42g of olive oil</li> <li>• Between 500-540g of warm (body temperature) water</li> <li>• Topping ingredients of your choice</li> </ul>
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To maximise the joy of this process, please read Handout Why (the other one) BEFORE taking action with this handout!

You will get the best results if you start The Francis Project **within 3 or 4 days** of receiving Francis (your starter). Those bacteria need feeding, otherwise they will die.

## Sourdough Starter

A sourdough starter is made by simply mixing flour with water. Over time, the bacteria (including *Lactobacillus sanfranciscensis* – hence the name The Francis Project) and yeasts that live all around us and upon grains of flour start to work their magic and multiply in the mixture. They produce vitamins that are useful to us, but they also produce carbon dioxide, the gas that causes all the air bubbles you will see during this process. It is this carbon dioxide that will make your pizza dough light and airy!

## Where the Sourdough Starter came from



We inherited our original sourdough starter, Francis, from Gordon at Tracebridge Sourdough in Wellington, Somerset. BUT if you want to participate in The Francis Project and you don't live near us at [Wondergut.com](http://Wondergut.com), you can either find someone local to you with a sourdough starter – any baker friends that make sourdough could give you some OR make your very OWN Starter – all you need is wholewheat and white bread flour, water and a sense of adventure. See the Appendix for details.

## What your Sourdough Starter should look like



This is what Francis, the sourdough starter, should look like when you receive it. It is flour and water and lots and lots of naturally-occurring bacteria & yeasts. You can't see the bacteria or yeasts as they are MICROSCOPIC. But you know they are there if you can see little bubbles in Francis.

## The Francis Project

### Step 1: Confirm Who You Are Going To Pass Francis On To

Think of three people you think would like to participate in the Francis Project. Make sure they know that you are going to give them the magic Francis Starter in a few days. This will enable them to get the ingredients they need to participate in The Francis Project.

## Step 2: Wash your hands with Soap and Water

It is important to wash your hands before handling food or eating because, guess what, **there are millions of bacteria on your hands!** Most of them do us no harm but some of them could. It is important to wash our hands thoroughly (including between our fingers) with soap and hot water and then to rinse our hands off with water at the end. Wash your hands **before every stage of The Francis Project.**

## Step 3: Make Sourdough Sponge – Feed Francis – First Feed

We suggest you start this process at **approximately 7pm on the night before you want to eat your pizza!**



Weigh out **100g of the sourdough starter** (Francis) that you have been given and put it into a bowl. It should be a bit bubbly and goey.

Add **200g of strong white bread flour.**

Add **200g of warm (body temperature) water.** Test this just by sticking your (clean) finger in – the water should be a similar temperature to your finger.

Mix together.



Cover the bowl with a **CLEAN** tea towel and put it somewhere warm, but not **TOO** warm – **22-25 degrees C is ideal.** If you don't have a warm room in your house (I use the airing cupboard) you can put a warm hot water bottle in an insulated picnic box. A steady warm temperature is important as the bacteria and yeast in Francis will work very slowly indeed without it and you will not be very impressed with the results! Equally, they will work quite quickly if you put a boiling hot hot water bottle in with them!

**Leave Francis for 8-12 hours, ideally until about 7am** the next day, until it looks like –



**THIS.**

You will be able to see lots of bubbles formed by the carbon dioxide given off by the bacteria and yeasts working away in Francis!

Believe it or not, the bacteria and yeasts inside your gut are busy doing a very similar job **RIGHT NOW!**

## Step 4: Make Sourdough Sponge – Feed Francis – Second Feed

Hopefully, you will do this at **approximately 7am** on the morning of the day you want to eat pancakes and pizza! If this is a work/school day, remember to allow extra time to do what is needed for Francis.



Weigh out **150g of your now bubbling** Sourdough Sponge (Francis) into a plastic bowl (now we have fed Francis with one lot of flour, it is called a Sponge not a Starter). **Set the remainder of the First Feed sponge to one side for now** – we can use that to make breakfast pancakes in **Stage 7**. First things first though:

To the 150g of Sourdough Sponge, add **300g of strong white bread flour**.

Add **300g of warm (body temperature) water**.

Mix together until it looks like this.

## Step 5: Measure Out Sourdough Sponge to give to your Friends



So now you have **750g** of Second Feed - sponge, flour and water all mixed together. Take your 3 clean jam jars and with **CLEAN HANDS**, spoon approximately 150g of this mix into **each** jam jar.

Make sure your jam jar is big enough to allow some room for Francis to expand. Otherwise, it might escape from its jar whilst in the school bag of one of your friends. And that would be **MESSY!**

Leave these out on the surface for 1-2 hours with the lids only **JUST** screwed on. Leaving them at room temperature gives the bacteria time to start work, digesting the freshly added flour). Do not fully tighten the jam jar lids until you are travelling them to your friends for handover as, even in the fridge (where the cold temperature slows the bacteria down), they will continue to give off carbon dioxide gas.

It is a good idea to stick a label onto each jar with your name & phone no. on it and the date that you put the sponge in the jar. That way the recipients of the jar will know how long they have before then need to “feed” the bacteria and they can contact you if they have questions.

After 1-2 hours, put your Francis babies in the fridge in their jam jars but **try to give them to your friends the very next day**. Francis babies can go 3-4 days without being fed flour **so the longer they sit in your fridge before handover, the less time your friends will have to start the Francis Project before the bacteria and yeasts starve**.

## Step 6: Tucking The Remainder Of The Second Feed Sponge Somewhere Warm

So, from the 750g of your Second Feed sponge, you have put approximately 450g in total into your jam jars. You should be left with the remaining approx. 300g of Second Feed sponge still sitting in the bowl, minding its own business!



Cover this remaining 300g with a clean tea towel and return it to your warm location (refill hot water bottle with warm water if you are using one). This is the sponge you will use to make your PIZZAS!!

**Leave for 8-12 hours again.**

Check it regularly, as ideally you will catch it when it is all nice and bubbly.

## Step 7: Pancake Stage

Now, whilst the 8-12 hours are ticking away, you can take the remaining First Feed Sourdough Sponge you put to one side at the beginning of **Step 4** and use it to make Sourdough Pancakes for breakfast! Here is the recipe:

### Sourdough Sponge Pancake

#### Ingredients

See Box 3 on first page of instructions.

#### Method

First, break the 3 eggs into a large bowl. 2. Add the milk. 3. Add 120g of the left-over sourdough sponge. 4. Add the salt. 5. Add the flour. 6. Whisk all the ingredients together. 7. Melt a large knob of butter in a large frying pan. 8. Pour a good dollop of pancake mix into the pan, move the pan to spread it about. 9. Fry it on both sides until it is golden. 10. Eat with your topping of choice.

Any left-over First Feed sourdough sponge should either be used to make MORE PANCAKES or be thrown away. Scrape it into the compost bin or bin rather than tipping it down the sink.

If you are now sick of Francis, **DO NOT DESPAIR**. You have seen how bacteria and yeast work in a simple mix of flour and warm water to produce carbon dioxide (along with other less visible by-products such as lactic acid, B vitamins and Vitamin K). You have eaten pancakes. If you don't want pizza, ignore the rest of the process – just pass your Francis babies on to your 3 friends tomorrow & dispose of the rest of your sponge (including the portion you tucked somewhere warm in Stage 6) into your compost bin or your bin.

## Step 8: Making Sourdough Pizza Dough

**We suggest you do this at around 4 pm – approx. 9 hours after Step 4 but if your house is very cold, your sourdough sponge may not be that lively. Leave it a bit longer if this is the case and move it somewhere warmer if you can.**



At the end of the 8-12 hours after the Second Feed, Francis the Sourdough Sponge should look like this - quite bubbly. If you hold your ear to it, you should be able to hear the gases bubbling. If you sniff it, it should smell quite yeasty. These are signs that all those invisible bacteria and yeasts are working away in there. Can you see the googly gas eyes in the picture?!



It should be so gassy now, that if you drop a small dollop into a glass of water, it will float on the top before eventually sinking.



Weigh out **170g** of lovely bubbly Francis sourdough sponge into a large mixing bowl. That is the first pizza ingredient listed in Box 4 on page 1. This will make 4x 400g pizzas. Add the other ingredients listed in the box to it. With the **warm** water, mix in most of the water but hold a little back. Add the rest of the water only if the mixture looks very crumbly and dry. The mix in the picture is just right.

Remember, if the water is too cold, the bacteria and yeasts will only work very slowly. If it is too hot, they will work too quickly



With sourdough, we tend to use olive oil to roll out the dough rather than flour. Lightly olive oil your surface and put some olive oil on your hands too. This will stop the dough sticking to the surface and to your hands as you work it.

Turn the dough out on the surface, ready for kneading.



Now, lightly olive oil the bowl as well – this will help you get the dough out of the bowl easily later on

### **Step 9: Knead The Sourdough Dough - First Time**



To knead the dough, fold the side of the dough nearest you up into the middle of the circle and then press down in the middle with your knuckles.



Turn the dough 90 degrees and do the same. Don't be tempted to press down TOO hard.



Repeat this process until you have been round 2 or 3 times in total.

You should feel the dough getting a more elastic and resistant as you do this. Keep your hands oiled to avoid the dough getting sticky. This should only take a minute or two.



Then pop the dough back into the bowl and cover with a clean tea towel and **leave on the surface for 20 minutes.**

### Step 10: Knead The Sourdough Dough – Second Time



In that 20 minutes, the bacteria and yeasts will have been very busy (assuming your kitchen is not like the arctic) and the dough will have increased in size a little.

Turn the dough out of the bowl again (making sure the surface has a light covering of olive oil and so do your hands). **Then repeat Step 9.**



Then turn it over and it should look like this.

### Step 11: Bulk Fermentation



Put the clean tea towel over the dough and pop it back in your warm location. **Leave it there for one hour.**

During this time, the bacteria and yeasts have a fine old time eating away at the sugars in the wheat. This process is called **bulk fermentation.**



After bulk fermentation, the dough will have increased in size again – thanks to all those busy bacteria and yeasts.

### Step 12: Divide Up The Sourdough Pizza Dough



Divide your dough into 4 equal sized smaller balls as gently as possible. We weigh ours, to make sure everyone gets the same sized pizza!

**Let them sit for 20 minutes if you have time.** You will see them expand even in that short time.

### Step 13: Stretch The Pizza Dough



You can use a rolling pin here, (just ensure the surface and the rolling pin is oiled) or just use your hands to start to stretch out each ball and then lay it over your fists – as you can see in the picture and then turn it around on your fists until it has stretched.

Then you can lay the dough gently on an oiled baking tray and gently shape it into an even shape.



Here is the pizza dough ready for toppings!

## Step 14: Pizzas Ready for Cooking



And here are the pizzas (and garlic breads) ready for cooking. Cook at approx. 220 degrees C for around 15 minutes. And EAT!

When you cut the crust, you should be able to see lots of air pockets, made by BACTERIA and YEASTS.

## Conclusion

We hope you enjoyed your pizza and pancakes. Please don't forget to pass your Francis babies on to your friends as soon as possible – remember to tighten the jam jar lids before you do though!

And remember that bacteria and yeasts are EVERYWHERE – outside us, in us and on us. We can't function without them.

## Trouble Shooting

### **I have received my Francis sample but it is not at all bubbly.**

It is likely that it has just not been fed flour for a few days. Carry out Steps 2 and 3. It is likely that this will wake Francis up and she will bubble just fine. If not, just repeat Step 3 again and leave it somewhere warm for another 8-12 hours. If there is still no sign of life, contact [wondergut@gmail.com](mailto:wondergut@gmail.com) and if you live near to us, we will arrange for you to receive a fresh sample. If you are not near us, you will need to find a source of vigorous starter near you. Look for sourdough bakers who live/work nearby.

### **My Sourdough Dough is not increasing in size**

Assuming you weighed out your proportions correctly, the main issue here is usually the water temperature or the room temperature – these bacteria and yeasts need a certain temperature range in which to operate. If your house is freezing and you have nowhere warm to put Francis, then you will have to extend the waiting times to allow the much slower bacterial action to take place.

### **Can I use wholemeal bread flour instead?**

Wholemeal flour absorbs water at a different rate so, when making the pizza dough, you cannot simply use wholemeal bread flour instead of white without adjusting the other ingredients too. If you would like to use wholemeal bread flour for the pizza, please email us on [wondergut@gmail.com](mailto:wondergut@gmail.com) and we can give you the recipe for wholemeal sourdough pizza. You can use wholemeal flour for the pancake recipe though without the need to change any of the other ingredient proportions!

## Appendix

### How To Make A Sourdough Starter From Scratch In Order to Participate In The Francis Project

- Day 1 - Take 40g **wholemeal wheat flour** and 40g water and mix well together. Keep in a plastic container with lid at around 25-28 degrees C.
- Day 2 - Add 40g **wholemeal flour** and 40g water to your starter and mix. Keep at the same temperature.
- Day 3 - Add 40g **wholemeal flour** and 40g water to your starter and mix. Keep at the same temperature.
- Day 4 - Add 120g **strong white flour** and 100g water to your starter, and mix. Keep at the same temperature.
- Day 5 - By today your starter should be bubbling gently. If it's not, take 130g of your starter and add: 60g wholemeal flour, 120g strong white flour and 130g water.
- Some people find it doesn't work first time – just try again.
- Once you see bubbles in your starter, it can be used at once to make a sponge or refrigerated for future use.
- Remember, once you have created a sourdough starter, the sugars in the wheat feed the bacteria and yeasts. If they run out of a supply, they will die so you will need to refresh it at least once a week – see Steps 3 and 4 above!