



A GLUTEN-FREE BAKING ADVENTURE

Unimpressed with gluten-free baked goods on the supermarket shelves, *Hatty Willmoth* decides to make her own

Going gluten-free can be a challenge. Fortunately, even the smallest supermarkets are likely to have a gluten-free section, but products can be expensive and hit or miss in terms of quality. Some are sickly-sweet or come with a bitter under taste. And, because gluten gives baked goods their pleasant chewiness, gluten-free alternatives can have dry or dense textures that are unwanted in a slice of bread or cake.

But how easy is it to make our own? To find out, I raided the flour aisle of my local health food shop, buying one of every variety they had.

Flatbreads

Probably the simplest thing to make with flour, flatbreads made a fair-ish test to understand how each flour behaves. I also conducted two 'controls': one using a wheat flour, and the other with a supermarket free-from flour blend already in my cupboard.

The former was delicious — in taste, smell, texture — and the latter not so great; as a dough, it struggled to stay together. As bread it was thick and dense with a bitty and, at times, squeaky texture, and a strange taste.

Separate to the 'controls' here's my ranking for each flour in order of success.

NO 1: CHICKPEA FLOUR

Chickpea (or gram) flour produced the most successful results. This is perhaps unsurprising, as it's already commonly used to make a flatbread called 'socca' which is popular in the south of France. The yellowest of my flatbreads, it smelt like a pancake as it cooked and crisped up beautifully, with lovely brown spots. Taste- and texture-wise, it was plain but inoffensive, and in the end served as an excellent vehicle for hummus. Also a glowing success were beetroot falafel and sweet potato fritters, made with chickpea flour.

For 100g of chickpea flour:

- 47g of carbohydrate
- 21g protein
- 14g fibre
- 6g fat
- Approx 87p per 100g

NO 2: BUCKWHEAT FLOUR

Buckwheat worked well as flatbread, with a nutty aroma while cooking, and very brown appearance. Once cooked, it struck me as hardy, utilitarian, get-the-job-done food: filling, dense and wholesome, with not much taste. This flatbread didn't necessarily spark joy, but was perfectly adequate. As advised by friends and the internet, I then made American-style buckwheat pancakes.

FLATBREAD RECIPE

Ingredients | To make 1 flatbread

- 50g flour of choice
- 25ml warm water
- 2 tsp olive oil
- Pinch of salt

Method

1. Mix flour and salt and gradually add water until mixed into a dough.
2. Add the oil and knead the dough.
3. Roll out the dough into desired size and shape of flatbread.
4. Heat an oiled pan (medium heat).
5. Cook the flatbread for 2 mins on each side.
6. Dust with flour and serve.

Note: Gluten-free flours often require extra water to form a dough (not chickpea or rice flours). They don't require kneading, and when rolling out they are liable to break apart. They may (especially quinoa and rice flour) also require longer cooking time.

Light and fluffy, they tasted a bit 'off' to me, but were good with substantial toppings — berries and cream, for instance, or apple and nut butter worked better than lemon and honey.

For 100g of buckwheat flour:

- 74g carbohydrate
- 6g protein
- 3g fibre
- 2g fat
- Approx 87p per 100g

NO 3: BROWN RICE FLOUR

Although it has a similar macronutrient composition to buckwheat, brown rice flour made a different flatbread. It broke apart while cooking and tasted fairly neutral except for a subtle bitter aftertaste. Texturally, it was firm, soft and chewy and occasionally squeaked when chewed. For me, this was the most middle-of-the-road option, which I used a lot when mixing different flours — including mixing it with almond butter to make chocolate chip cookies. These weren't as chewy as hoped — more of a biscuit — but, for a made-up recipe it was remarkably successful: nutty, substantial, and not too sweet.

This was the cheapest I found — after readymade gluten-free flour blends.

For 100g of brown rice flour:

- 74g carbohydrate
- 6g protein
- 3g fibre
- 1g fat
- Approx 60p per 100g

NO 4: QUINOA FLOUR

Another that disintegrated in the pan, this produced a mid-brown flatbread with some pleasing spots, but immediately smelt strange. When cooked, it had a strong, bitter flavour that I found hard to get over. Despite a great texture — crisp and chewy — it needed a lot of hummus to be palatable to me. After that, I was reluctant to try any solely quinoa-flour creations, but did add it to mixed-flour recipes. In small enough quantities, its taste was obscured. But when I included it to make flatbreads from four flours of roughly equal quantities, the overriding flavour was quinoa. For this reason, quinoa flour and I are not friends.

For 100g of quinoa flour:

- 64g carbohydrate
- 14 protein
- 7g fibre
- 6g fat
- Approx £1.27 per 100g

NO 5: CHESTNUT FLOUR

Chestnut flour ranked fifth mostly because it confused me. Liable to crumble and fall apart as dough, it ended up cooking fine. When it was done, it looked strange — brown but normal on one side, and like mottled tree-bark on the other — and in the

mouth it was chewy and almost creamy in texture. Yet its flavour quickly changed from pleasantly nutty to vile bitterness; most of this flatbread went in the bin.

That said, I did learn to love chestnut flour. Mixing it with ground almonds and rice flour, it made my favourite gluten-free creation to date: a spiced apple cake. Flavoured with festive cinnamon and nutmeg, it was not perceptibly gluten-free and had a texture similar to banana bread. Absolutely delicious, this cake stayed soft and moist for days after baking. It was, however, the most expensive box by far, at a whopping £6.29 for just 350g.

For 100g of chestnut flour:

- 74g carbohydrate
- 6 protein
- 9g fibre
- 4g fat
- Approx £1.80 per 100g

NO 6: COCONUT FLOUR

Finally, coconut flour was disastrous. As flatbread dough, it broke into so many pieces that some crumbs burnt while bigger bits were still cooking. And, though it might have smelt nice, it tasted savoury and flat — almost meaty — and its texture was sawdust-dry.

“Coconut,” I wrote in my notes, “does not bread.”

After that, I was hesitant to try using coconut flour by itself. I’ve added it to lots of flour mixtures, and my partner has mixed it with supermarket gluten-free flour to bread tofu with remarkable success. I do hear that it makes excellent sweets and I plan to eventually make macaroons out of it — once I pluck up the courage.

For 100g of coconut flour:

- 19g carbohydrate
- 16g protein
- 37g fibre
- 18g fat
- Approx 84p per 100g

GLUTEN-FREE SPICED APPLE CAKE

Ingredients (dry)

- 130g chestnut flour
- 60g ground almonds
- 50g brown rice flour
- 2 tsp baking powder
- 1 tsp bicarbonate of soda
- 2 tsp cinnamon
- 1 tsp nutmeg
- 1 tsp dark brown sugar
- 60g dried fruit (optional)
- Pinch of salt

Ingredients (wet)

- 3 medium-sized cooking apples
- 2 eggs, beaten
- 1 tsp vanilla extract
- 55ml olive oil
- Honey to taste (up to 1 tbsp)

Method

1. Preheat oven to 180C.
2. Peel and core apples and grate 125g into a bowl.
3. Chop the rest and place in a pan. Cover with water and boil, stirring until it’s puree. Set aside to cool.
4. Mix together dry ingredients in a large bowl.
5. Mix together wet ingredients (except the apple puree) in a separate bowl.
6. Measure out 125g apple puree and, ensuring it’s approximately room temperature, add to the wet ingredients. Put the rest of the apple puree in the fridge.
7. Mix the wet ingredients into the dry ingredients and stir until fully incorporated.
8. Pour mixture into greased loaf tin.
9. Bake in oven for 35 mins.
10. Serve with the rest of the apple puree.



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Mixing flours together

It may be more expensive than it's worth for the average home-baker to buy lots of different flours and mix them together at home, but for me it produced the best results; I could balance the various flours' properties so no single strange flavour or texture dominated.

For instance, by mixing five flours, using rice and buckwheat as the base, I was able to bake a lemon drizzle cake that was divine: moist, crumbly, soft, sticky, rich and tangy. The crumb was noticeably gluten-free, but only just.

Other helpful ingredients

A key discovery is that while texture may pose the biggest hurdle, it can be tackled with savvy recipe choices — as well as generous quantities of baking powder and bicarbonate of soda.

Gluten-free cakes tend to work best when straying from classic sponges. Additions such as drizzles and fruit/veg, to achieve moist, sticky textures, work well: for example, lemon drizzle, coffee drizzle, carrot cake, banana bread, chocolate and beetroot cake, and so on. These cakes don't need to be glutinous to be excellent.

For biscuits, crumbly textures were more easily achieved than chewiness — unless making flapjack, which is a great gluten-free option.

Other ingredients also turned out to be helpful. Ground almonds, or oats blended into a powder make for acceptable flours, albeit with their own quirks — ground almonds, for example, can be quite dense and heavy.

Meanwhile, whole oats and ground/chopped nuts — with some butter, syrup/honey/sugar, and spices — can make for a chewy, crispy alternative to fruit-crumble topping, or toasted in the oven can be a biscuity 'crumb' that's great with stewed fruit and ice cream. My research even told me that nut butter can be used in completely flourless biscuits and brownies — although I'm yet to try this.

With so many more recipes to try, my gluten-free baking adventure is far from over. But for now, I'm pleased that, compared to what's on offer in supermarkets' free-from aisles, and what I could rustle up with a standard free-from flour, these creations have been a significant step up.



GLUTEN-FREE LEMON DRIZZLE CAKE

Ingredients (for the cake)

- 225g butter
- 150g caster sugar
- 100g brown rice flour
- 65g buckwheat flour
- 25g coconut flour
- 20g chickpea flour
- 15g quinoa flour
- 3 tbsps baking powder
- 4 eggs
- 1 lemon, zested

Ingredients (for the drizzle)

- 1½ lemons, juiced
- 85g caster sugar

Method

1. Preheat oven to 180C.
2. Beat together the butter and sugar until creamy. Add the eggs one at a time, slowly mixing through.
3. Sift in the flours and baking powder, then add the lemon zest, and mix well until combined.
4. Line a loaf tin with greaseproof paper, then spoon in the mixture.
5. Bake for 45-50 mins.
6. While the cake is cooling in its tin, make the drizzle by mixing the lemon juice with the sugar.
7. Prick the warm cake all over, and pour over the drizzle. Leave in the container until cool.

GLUTEN-FREE NUTTY CHOCOLATE CHIP BISCUITS

Ingredients

- 200g nut butter (almond or peanut)
- 200g brown rice flour
- 100g brown sugar
- 2 small eggs, beaten
- 1 tsp vanilla extract
- ½ tsp salt
- ½ tsp bicarbonate of soda
- 125g dark chocolate

Method

1. Preheat oven to 180C.
2. Roughly chop the dark chocolate into small shards.
3. Cut the butter into small cubes, and mix with the nut butter until smooth and creamy.
4. Mix in the sugar well.
5. Add the eggs and vanilla extract and stir briefly.
6. Sieve the rest of the dry ingredients into a separate bowl (flour, salt, bicarb), and mix.
7. Gradually add the dry ingredients to the wet mixture, and stir in thoroughly.
8. Stir in the dark chocolate.
9. Grease two baking trays.
10. Roll and pat mixture into approximately 15 large biscuits.
11. Bake for 15 mins.