

Liver with bacon and onions

Ingredients

4 rashers smoked streaky bacon

2 tbsp plain flour, seasoned

pinch dried sage (optional)

6 slices lamb's livers (about 400g/14oz)

1 tbsp olive oil (or use low cal spray oil)

1 onion, thinly sliced

300ml reduced salt beef stock

2 tbsp ketchup

Method

1. Cook the bacon in a large non-stick frying pan until crisp.
2. Meanwhile, mix the flour and sage, if using, and use to dust the liver.
3. Remove bacon from the pan and set aside. Add the oil to the pan and brown the liver for about 1 min on each side. Remove from the pan, then fry the onion until softened.
4. Stir in stock and ketchup, then bubble for 5 mins.
5. Put the liver back in the pan and cook for 3 mins until cooked through.
6. Serve with the bacon over the top.

✓ Serve with mashed potato for a tasty filling meal.

HEALTH BENEFITS

Liver & bacon is a really nutritious dish – one serving will provide your day's iron, zinc, folate and vitamin C. As well as being rich in minerals, liver is a good source of B12, a vitamin which helps your body to use iron. It's also high in vitamin A, important for healthy skin, hair and eyes.

<https://www.bbcgoodfood.com/howto/guide/what-vitamin-b12>

Vitamin B12 – also known as cobalamin, is a water-soluble vitamin, naturally found in some foods, added to others and synthesised by bacteria in the small intestine. It is involved in many vital processes in the body, including:

Producing red blood cells

Keeping the nervous system healthy

Releasing energy from food

Creating DNA and RNA (the building blocks of every cell in the body)

Which foods contain vitamin B12?

Vitamin B12 is mainly found in meat, offal, milk, fish and eggs. The richest sources are liver, clams, kidneys and oysters.

For vegetarians and vegans, it is harder to obtain vitamin B12. It is found in some fermented foods, such as tempeh and more commonly in nori and nutritional yeast (or yeast extract like Marmite). Alternatively look out for vegan and vegetarian foods that are fortified with vitamin B12, such as some plant milks and breakfast cereals. Supplements are also widely available.

There is some evidence to suggest that the form and bioavailability of B12 found in vegetarian/vegan sources is not as able to meet our body's requirements as animal sources. Those with a reduced intake of animal foods should speak to their GP or health professional in order to determine whether they should consider taking a supplement.

How much vitamin B12 you should eat per day?

Vitamin B12 is necessary in only very small amounts each day. The NHS advises that the recommended daily amount (RDA) is 1.5 micrograms (mcg) for adults.

How much of each food do you need to reach these amounts?

Most people will be able to meet their vitamin B12 needs through a balanced and varied diet. Some excellent food sources of vitamin B12 include:

100g mussels

100g lamb liver

100g mackerel

100ml soya milk (fortified)

200g yogurt

Other good sources include most meats, salmon, cod, milk, cheese, eggs and fortified breakfast cereals.

What are the symptoms of a vitamin B12 deficiency?

Vitamin B12 deficiency is quite hard to detect and so can go undiagnosed for years. Symptoms can include fatigue, lethargy, shortness of breath, pale skin (possible with a pale yellow tinge), mouth ulcers, sensations of 'pins and needles', disturbed vision, impaired mental function and depression. Many of these symptoms are not unique to vitamin B12 deficiency, and not everyone who is diagnosed will experience these symptoms. If you are concerned that you may be deficient you should see your GP, who may wish to carry out a blood test.

A more severe form of vitamin B12 deficiency is called pernicious anaemia. This is an autoimmune disease which occurs due to issues with a specific glycoprotein called intrinsic factor (IF), which is created in the stomach and is necessary to absorb vitamin B12. Pernicious anaemia causes the immune system to attack the cells in the stomach which produce IF. Without IF, vitamin B12 cannot be absorbed and therefore deficiency can occur. Pernicious anaemia is now treated with B12 injections.

Read more from the NHS about vitamin B12 or folate deficiency anaemia and pernicious anaemia.

Who might be at risk of a vitamin B12 deficiency?

Anyone who is unable to eat a varied and balanced diet or whose digestion is compromised, including the elderly, may be more at risk of B12 deficiency. Additionally, people with certain medical conditions, such as coeliac disease and Crohn's disease, may be unable to absorb adequate B12 from food.

Strict vegans who do not include any fish, poultry, eggs or dairy products in their diet and are not taking vitamin B12 supplements are at increased risk of deficiency. For those eating an exclusively plant-based diet, it is recommended to get B12 levels checked regularly. Vegetarians who do not regularly include dairy in their diet and do not include fortified foods such as plant-based milks and spreads may also be at risk and should see their GP if they are concerned.

Anyone considering taking a B12 supplement should talk to their GP or associated health professional first.