



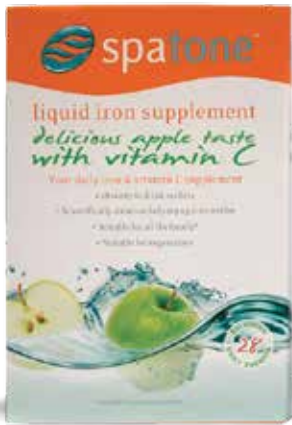
spatone[®]
liquid iron supplement

Your Comprehensive Iron Guide



Iron-rich spa water from Snowdonia, Wales
Scientifically shown to help top up iron levels





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Introducing Spatone

Spatone is a 100% natural liquid iron supplement. One sachet of *Spatone* provides the daily requirements of (absorbed) iron.

Spatone has been scientifically shown:

- to prevent iron deficiency during pregnancy
- to be a highly absorbable source of iron (absorption of *Spatone* is up to 40%)
- to be gentle on the stomach, causing fewer side effects than conventional iron supplements

Spatone is available in convenient portable single sachets.

Spatone Original is sold in boxes of either 14 day or 28 days supply.

Spatone Apple is also available - *Spatone* in a pre-mixed natural apple juice concentrate with Vitamin C to aid the absorption of iron.

Available in all leading pharmacies and health food stores including Boots and Holland & Barrett and at Tesco, Sainsbury's, Asda and Waitrose.

Spatone Key Facts

The most easily absorbed 100% natural liquid iron supplement available

Active ingredients	¹ 5mg free Ferrous Ionic State Fe ²⁺ scientifically shown 26 to 40% bioavailability compared to an average 5 - 20% from food and 3 to 10% from iron pills.
Usage	One sachet a day can provide the entire average absorbed daily iron requirement for women (2mg), children and men (1 to 1.5mg).
Use during pregnancy	During the 1st trimester and post natal, 1 sachet can provide the average extra absorbed iron requirement of 2mg/day. During the second and third trimesters a mean iron absorption of 1.5-4mg is required. This may be provided by taking two sachets of <i>Spatone</i> which should prevent the development of iron deficiency in most women. Users during clinical trials reported no adverse reactions when taking <i>Spatone</i> on an empty stomach. <i>Spatone</i> therefore provides a more tolerable alternative to standard ferrous sulphate tablets without the unpleasant side effects.
Benefits	100% natural, highly bioavailable, iron containing spa water in a convenient single use sachet (No additives whatsoever).
Age	Over 2 years old.
Contra-indications	People who know they have genetic haemochromatosis or carry the haemochromatosis gene should not take iron supplements, including <i>Spatone</i> .
Adverse drug reactions	Interactions between <i>Spatone</i> and drugs are unlikely at the recommended levels.
Possible side effects	Conventional iron tablets are associated with side effects which include gastrointestinal irritation and sometimes nausea and vomiting. These side effects generally relate to the amount of iron not absorbed from the supplement as absorption from conventional supplements is low and therefore higher doses of iron are needed. <i>Spatone</i> , on the other hand, is a highly absorbable source of iron with absorption of up to 40% so each sachet of <i>Spatone</i> only needs 5mg of iron to provide the body's daily absorbed iron needs.
Over usage	In order to cause acute iron toxicity in young children it is probable that the contents of over 50 sachets would need to be drunk at once. Poisoning from excessive consumption is therefore unlikely.
Legal category	Food supplement.
Pack sizes	Boxes containing either 14 sachets or 28 sachets.
Source	Trefriw Wells Spa Ltd, Trefriw, Snowdonia National Park, North Wales LL27 0JS (UK)
Company	A Nelson & Co Limited, Nelsons House, 83 Parkside, Wimbledon, London SW19 5LP (UK)

¹Typical analysis / ²Haemochromatosis is an inherited condition in which subjects inherit two copies of the gene (one from each parent). About 1 in 200 people in the UK have genetic haemochromatosis. Iron accumulation can eventually lead to tissue damage resulting in cirrhosis of the liver and diabetes. It is a treatable condition and genetic testing is available.

Iron deficiency - symptoms and groups at risk



- Iron depletion is one of the most widespread mineral deficiencies in the world and is particularly common amongst women
- In the UK 91% of women aged 16-64 are not getting the recommended daily amount of iron in their diets*
- As a result, one third of all women and two in five under the age of 34 have intakes so low that it affects their health
- An additional 6% of women have such low iron stores, it leaves them feeling chronically tired and unable to concentrate

* Department of Health, the National Dietary and Nutritional Survey: adults aged 16-64. Volume 3, London UK, 2003.

Symptoms of iron deficiency:

- Fatigue
- Dizziness and shortness of breath
- Headaches, palpitations and altered taste
- Decreased ability to concentrate

Groups at greatest risk of developing iron deficiency include:

- Pregnant women
- Menstruating women
- Athletes
- Vegetarians
- Teenagers
- Children
- The Elderly

Absorbed iron matters, not just dietary intake

The current adult Recommended Daily Amount (RDA) in the UK for iron is 14mg however the amount of iron required by the human body is very different and this is due to iron's poor bioavailability. The following shows how much each group requires of absorbed iron daily.

Why is stated RDA 14mg if body's absorbed iron requirement is so much lower?

- The RDA of 14mg reflects the typically low rate of iron absorption from most dietary iron sources
- Typical absorption of iron is only 5-20% from iron sources. Therefore, people usually need to have a dietary intake of 14mg of iron to fulfil their body's needs
- Adult men: 0.5-1mg iron
- Adult women – pre-menopause: 1-2mg iron
- Adult women – post-menopause: 0.5-1mg iron
- Pregnant women: 1.5-4mg iron
- Children: 1mg iron

One sachet of *Spatone* contains approximately 34% of the adult RDA for iron. However, because the iron in *Spatone* is so much more easily absorbed than the iron in the collective variety of foods used to calculate the RDA, one sachet can be enough to provide 100% of the body's actual absorbed requirement for iron in men and women.

See page 6 for comparison of *Spatone* with conventional ferrous sulphate tablets.



What makes Spatone unique compared to other iron supplements?

1. High absorption

Spatone has been scientifically shown to be a highly absorbable source of iron with absorption of up to 40%. Conventional iron supplements have a bioavailability of 3-10%.

Absorption of iron from food is very limited. Please see page 8 for iron absorption rates from different foods.

2. Gentle on the stomach

Since the iron in *Spatone* can be readily absorbed in the body, you only need to take small quantities to get your entire average absorbed daily requirement of iron.

This is why *Spatone* causes fewer of the common side effects of iron supplements such as constipation, stomach irritation and headaches.

3. 100% natural

Spatone is an entirely natural iron rich water from the heart of Snowdonia's mountain. The iron rich spa water is filled directly into sachets. No preservatives - no additives - simply iron rich water straight from the source.



Spatone Clinical Studies

Three published studies on Spatone:

- **Highly absorbable source of iron**
Proven absorption of up to 40%.
Publication by Prof. Worwood et al.* demonstrated mean absorption of iron in *Spatone* as high as 40% in patients with low iron stores. Study concluded “*Spatone* provides iron in a highly bio-available form”
- **Absence of side-effects**
Publication by D. McKenna et al.** concluded that “Patient compliance with traditional iron supplements is poor and a large number of patients stop their supplements because of gastrointestinal side-effects. In this paper we have shown that *Spatone* does not cause these side-effects and helps to prevent iron deficiency in pregnancy”
- **Suitable for pregnancy**
Publication by G. Halksworth et al.*** demonstrated the high absorption of *Spatone* in pregnant women with iron deficiency anaemia. It concluded “*Spatone* is a suitable alternative to the standard ferrous sulphate tablet to help top up iron levels during pregnancy”

* Worwood, M et al (1996). Iron absorption from a natural mineral water. *Clin Lab Haem*, 18, 23-27

** McKenna, D. et al (2003). A randomised trial investigating iron rich natural mineral water as a prophylaxis against iron deficiency in pregnancy. *Clin Lab Haem*, 25, 99-103

*** Halksworth et al. (2003). Iron absorption from *Spatone* (a natural mineral water) for prevention of iron deficiency in pregnancy. *Clin. Lab. Haem*, 25, 22 7 - 231



How does Spatone compare to iron tablets?

This chart compares ferrous sulphate tablets (at varying concentrations & bioavailabilities) with the approximate number of Spatone sachets required to potentially absorb the equivalent amount of iron.

Note: on average, only 30% of the pills total iron content is elemental (i.e. available for absorption). The below figures are a guide only. *Spatone* is not being suggested as a replacement for other iron preparations especially if you have prescribed iron tablets from your doctor or qualified health care practitioner and no treatment should be stopped without consultation.

Ferrous Sulphate	Average 30% Elemental Iron Content	Bioavailability*	Potential Absorbed Iron	Equivalent Spatone sachets required to potentially absorb the same quantity of iron**
65mg	19.5mg	5%	1.0mg	0.5
65mg	19.5mg	10%	1.9mg	0.9
100mg	30.0mg	5%	1.5mg	0.7
100mg	30.0mg	10%	3.0mg	1.5
200mg	60.0mg	5%	3.0mg	1.5
200mg	60.0mg	10%	6.0mg	3.0
325mg	97.5mg	5%	4.8mg	2.4
325mg	97.5mg	10%	9.7mg	4.8



* Iron bioavailability decreases considerably when the amount taken increases above 100mg.

** Assumes patients are iron deficient. *Spatone* bioavailability of 40% is used throughout the comparison because even if the content of 3 sachets are consumed, the total amount of iron administered is only 15mg therefore a drop in bioavailability should not occur.

What consumers have said about Spatone

“At the start of 2011, I was devastated having run almost 30 seconds slower than my personal best and soon found out that I had low iron levels. With the help of *Spatone*, I was able to build my haemoglobin and ferritin levels back up to a normal level. Continuing to use *Spatone*, I maintained these levels through winter and took 5 seconds off my personal best for 800m this year. This led to achievements such as English U20 Champion, 4th at the Olympic Trials and 6th in the World Junior Championships. As a medical student, I also understand how important it is to use natural supplementation to help top up iron levels and I am very grateful to have the support of *Spatone*. Thank you for helping me to achieve my goals in athletics.”

Emily Dudgeon, Cambridge

“It is extremely important to keep your iron levels topped up during pregnancy which can be difficult to do through diet alone, which is why natural iron supplements like *Spatone* are beneficial.”

Maggie Evans, Midwife

“I am vegetarian and struggle with my iron levels. While I do include lots of iron rich foods into my diet I still have times where I suffer low iron levels and feel constantly tired and lethargic. Over the years I have tried countless amounts of iron tablets with little luck. When I was pregnant with my second daughter I started taking *Spatone* and my iron levels dramatically improved. These days I refuse to run low on *Spatone* supplies because I notice a difference in my energy levels and general well being if I go without *Spatone* for even a few days. Unlike other Iron supplements I have taken in the past, I have never experienced any side effects whilst taking *Spatone*.”

Liverpool, England



How does Spatone compare to iron from food?

One sachet of *Spatone* can provide you with up to 2mg of absorbed iron due to its high bioavailability of up to 40%. Iron from food source can be hard to absorb which makes it difficult to know how much you take in each day. Iron in food is thought to have a bioavailability of 5-20% which means that you have to eat large portion sizes to get the iron you need.

The table below shows how much of each food you would need to eat to obtain the equivalent iron as is in one sachet of *Spatone*.

Food	Recommended Serving Size*	Quantity required to eat to get the same amount of iron as 1 sachet of Spatone**	
Broccoli	36g	4000g or 111 servings	
Brazil nuts	34g	2833g or 83 servings	
Beef	113g	283g or 2.5 servings	
Lentils	198g	3050g or 15 servings	

* The recommended serving size is from ESHA (www.esha.com)

** These calculations are based on the assumption that 5-20% of the available iron is absorbed, in reality it could actually be less and you would need to eat even more!

The amount of iron in food will be dependent on a variety of factors including how the food is produced and prepared. The absorption of iron will vary by individual.

Food Absorption Rates

The below table shows the iron content of selected foods per 100g as well as iron content of selected foods per serving.

Absorption of iron is generally increased if the consumption of tea and coffee is avoided, Vitamin C (e.g. a glass of orange juice or green vegetables) is considered to help the absorption of iron. It is important to note that individuals will absorb their nutrients at different rates depending on their state of health and digestive system.

Food	Estimated mg of iron per 100g serving	Serving size	Estimated mg of iron per serving size
Blackstrap molasses	16.2	14g	2.3
Sesame seeds	14.5	36g	5.2
Pumpkin seeds	11.2	34g	3.8
Parsley	6.2	7.5g	0.5
Soya beans	5.11	170g	8.7
Almonds	4.7	34g	1.6
Prunes	3.9	42g	1.6
Cashew nuts	3.6	34g	1.2
Spinach	3.5	180g	6.3
Beef cooked	3.5	113g	4.0
Brazil nuts	3.4	34g	1.2
Lentils	3.3	198g	6.5
Dates	3	42g	1.3
Walnuts	2.9	25g	0.7
Pork	2.9	113g	3.3
Kidney beans	2.9	177g	5.1
Sardines	2.9	92g	2.7
Wholemeal bread	2.7	36g	1.0
Raisins	2.5	36g	0.9
Lamb	2.4	113g	2.7
Sweet potato	1.8	77g	1.4
Eggs	1.18	44g	0.5
Avocado	0.95	146g	1.4

The iron levels quoted in this table are based on data used by George Mateljan Foundation and the World Healthiest Foods (whfoods.org). The nutrient breakdown data is from by ESHA (www.esha.com).

5 Simple tips to help increase iron absorption...

1. Leave a 30-45 minute gap between drinking tea, coffee, fizzy drinks or wine and taking iron supplements such as *Spatone*. The tannins (in tea, coffee & wine) or phosphates (in fizzy drink) can bind iron making it very hard to absorb.
2. Leave a 30-45 minute gap between eating iron containing foods and drinking milk as calcium inhibits the absorption of iron in the body.
3. Phytates in raw cereal can also inhibit iron absorption, so leaving a 30-45 minute gap between consuming cereal and iron supplements such as *Spatone* can be helpful.
4. Vitamin C assists iron absorption of most foods, so it's a good idea to drink some orange juice when taking iron supplements such as *Spatone*. If you can't tolerate orange juice try apple, mango or pineapple juice. Or try *Spatone* Apple, your daily iron supplement mixed with apple concentrate providing your RDA of iron and Vitamin C in a convenient sachet.
5. Some drugs that may inhibit iron absorption and iron can also inhibit absorption of some other drugs. Here are a few examples, but remember to consult your doctor or qualified health care practitioner if you are taking any medicines prescribed or self purchased when taking a food supplement.
 - Drugs that may inhibit iron absorption
 - Magnesium salts (oral)
 - Tetracyclines
 - Trientine
 - Zinc
 - Drugs whose absorption can be inhibited by iron
 - Bisphosphonates
 - Ciproflaxacin
 - Entacapone
 - Levodopa
 - Penicillamine



Frequently Asked Questions

QUESTIONS	ANSWERS
How much iron is there in Spatone?	One convenient <i>Spatone</i> sachet contains 5mg of iron in solution. Scientifically shown bioavailability, as high as 40%, means one sachet can provide up to 2mg of iron. 2mg is the average absorbed daily iron required by women, or the average extra quantity needed daily during early pregnancy.
Is Spatone compatible with medicines?	Although it is unlikely that the iron in <i>Spatone</i> will cause interactions with medicines, we would always recommend you to consult your doctor or qualified healthcare practitioner if you are taking any medications before using <i>Spatone</i> .
What if I take Spatone when I don't need extra iron?	Studies indicate that people with high iron stores will absorb little iron. <i>Spatone</i> can provide iron for people who require it, but for those with adequate iron levels it should not cause iron overload.
Can I use Spatone long term?	In some circumstances taking a supplement longer term can be beneficial for some groups such as vegetarians, vegans, athletes and those that are not getting enough dietary iron due to their lifestyle.
Will the iron in Spatone affect my zinc levels?	No, <i>Spatone</i> should not interfere with the average daily zinc absorption. Only small amounts of iron are being taken.
What is Spatone Apple?	<i>Spatone</i> Apple simply combines <i>Spatone</i> with a delicious apple concentrate from a 100% natural source and extra added Vitamin C (ascorbic acid). <i>Spatone</i> Apple is free from artificial colours

Frequently Asked Questions (continued)

QUESTIONS	ANSWERS
Will the iron in Spatone stain my teeth?	No, providing teeth are cleaned regularly. Tannin in tea not only inhibits iron absorption, it can also cause tooth stain. It reacts with iron, turns it brown/black and can stick to dental plaque. Just look inside a tea pot for an extreme example of tannin staining. Regular brushing stops any staining but use of tooth whitener or stain remover may clear any staining should it occur.
What production regulations does Spatone have to comply with?	As a food, <i>Spatone</i> complies with the UK Food Safety Act 1990, Food Safety (Hygiene) regulations 1995. The manufacturing facility is also GMP compliant. GMP (Good Manufacturing Practice) is a set of standards controlling the management of manufacturing and quality control of foods and pharmaceutical products, and is inspected by the UK Medicines and Healthcare products Regulatory Agency.
Is Spatone suitable for Vegetarians and Vegans?	<i>Spatone</i> and <i>Spatone</i> Apple are suitable for vegans and vegetarians. Both products are approved by the UK Vegetarian Society.
Can children take Spatone?	Children over the age of two years can safely take one sachet of <i>Spatone</i> a day.
How much Spatone can I take during pregnancy?	Two sachets of <i>Spatone</i> a day may be taken.

For more frequently asked questions or if you would like to ask us a question visit:
www.spatone.com/faq.aspx

Brief History of Trefriw Wells Spa

Home of Spatone



AD250-AD100 Soldiers of the XX Roman legion garrisoned at Canovium, 3 miles north of Trefriw, are believed to have

discovered the spa water now known as *Spatone* whilst prospecting for minerals in the Snowdonia mountains.

1700 Used extensively by local inhabitants until a landslip covered the entrance to the Cave of Wells.

1733 The cave was re-excavated.



1743 Originally people would bathe in the sulphur springs inside the caves, but in 1743 Lord Willoughby de Eresby built the Cyclopean

Bath House. This was to cater for the greater number of people visiting the spa.



1874 Ownership of the spa passed from public to private ownership. The Victorian pump room and bathhouse was built. For the

first time the spa water was sold commercially.



1875-1959 *Spatone* was bottled and became so popular it was sent all over the world by mail order. Even to places like Central

Africa, Australia and South America, as well as all over Europe.

1959-1971 Trefriw Wells Spa fell into disrepair. Free prescriptions for all people on the NHS contributed to the temporary demise of spas in the United Kingdom.



1972 Because of renewed interest in natural health remedies the spa was restored and opened to the public once again.



1992 *Spatone* became a recognised Heilwasser (healing water) in Germany, specifically for the prevention of iron

deficiency anaemia. In the UK and the rest of the world *Spatone* is sold as a highly bioavailable food supplement.



2009 Over 12 million packs of *Spatone* were produced and sold in pharmacies and health food stores worldwide.



2011 The launch of *Spatone* Apple - original *Spatone* mixed with apple concentrate with added vitamin C to aid in the absorption of iron.

www.spatone.com

Call Spatone direct for:

- more free copies of this booklet
- free consumer pregnancy and iron information leaflets
- more information on Spatone 100% natural iron supplement

Direct From Spatone:

FREephone 0800 7311740 (UK only)

Tel: +44 (0) 1492 640057

Fax: +44 (0) 1492 641590

Email: info@spatone.com

or write to...

Nelsons (Spatone)

FREEPOST LON

10771

London

SW19 5BR

For distribution and product range in Ireland please contact:

Wholefoods Wholesale

Unit 3 Kylemore Industrial Estate

Killeen Road

Dublin 10

Ireland

Tel: (0)353 1626 2315

Email: Spatoneireland@nelsons.net

Spatone is available UK-wide from:

- All leading chemists* including Boots**, Lloyds, Superdrug and in select supermarkets - Tesco, Asda, Sainsbury's and Waitrose
- All leading healthfood stores, including Holland & Barrett
- Major chemist and health food wholesalers

* If your chemist needs to order Spatone, help them by letting them know the universal ordering pip code

- 28 Day Spatone 219 0379, 28 Day Spatone Apple 360 5557, 14 Day Spatone 219 0361

** Smaller Boots stores may need to order Spatone for you, help them by quoting their stock order code

- 28 Day Spatone 246 8646, 28 Day Spatone Apple 483 7045

