Thursday 23rd May 2019

VAT on Food Supplement Products – Public Consultation

Response to VAT Consultation Document

To whom it may concern,

My name is: [redacted] I am a practicing Nutritional Therapist and member of NTOI (Nutritional Therapists of Ireland).

NTOI represents over 350 professionals who are qualified to give nutritional advice to individuals looking to improve their health.

We are one of only two professional representative bodies in Ireland engaged in this, the other being dieticians who work mostly in medical care settings.

In my submission, I am advocating for leaving the VAT rate on food supplements at zero for the following reasons:

I and my fellow NTOI members work at the coal face of preventative healthcare, helping many thousands of individuals to optimise their health by adopting good dietary eating habits based on sound scientific principles.

It is clear from our interaction with the public that many people struggle to consistently consume a basic healthy diet on a daily basis, and as such the use of dietary supplements in both the short to medium term are a de facto critical element in helping people stay the course and achieve better health in the long term.

The vast majority of chronic illness, which represents the lion's share of the economic burden of healthcare to the state, is attributable to diet and lifestyle 'failings' and are therefore preventable. For example, it is estimated that 80% of cardiovascular disease and type 2 diabetes could be avoided if people adopted a healthier diet and reduced the other major risk factors such as smoking, excess alcohol use, and physical inactivity.

The current medical healthcare system is stretched to its limits coping with chronic illness. Hospital corridors nationwide overflow with occupied trolleys, and medical organisations regularly issue dire warnings about the looming epidemics of chronic illness.

For example, Dementia alone already costs the state nearly 2 Billion Euros annually, and the costs of managing all chronic diseases combined are predicted to soar to near breaking point in the medium- term future. Most of this is preventable.

Against this backdrop it is imperative that any Government policy promoting 'upstream' preventative healthcare for the general public be pursued aggressively if we are to lower the volume of people needing critical care for otherwise preventable chronic illnesses.

The state should do everything in its power to support individuals who take an active role in maintaining and even optimising their own health.

My position, in line with that of NTOI is that adding any VAT to food supplements will not only give the wrong signal to the public that these items are a luxury and therefore not important, but the extra cost will actually dissuade people from investing in their own healthcare, resulting, down the road, in a certain net increase in the burden of chronic illness.

Should the proposed VAT be introduced, it is our belief that any money raised by the government will be wiped out by the exponentially larger cost of managing the burden of chronic disease.

To offer just one simple example of this:
Type 2 diabetes is preventable. Leg ulcers are one of the most common complications, and treating just one single ulcer costs the state €30,000.

Had that person taken an active role in their health they could have prevented the decline into diabetes and the ulcer that came with it, not to mention the plethora of other medical costs that go along with diabetes.

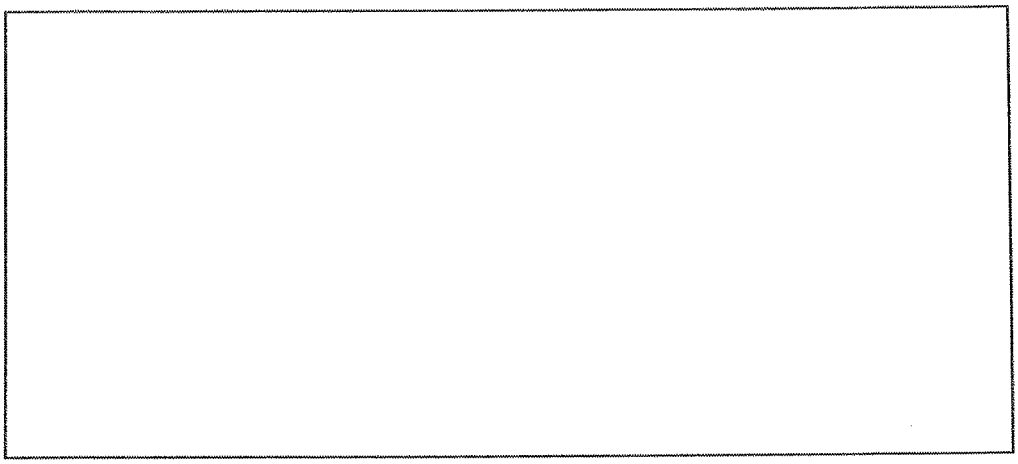
Had the state chosen NOT to apply a punitive VAT to supplements it would stand to lose an average of €800 tax revenue over ten years from that single person - but it would save a whopping €30,000 in ulcer treatment costs - plus any other diabetic related medicine costs - and that's in one single year!

Clearly the long term benefits to the state are in the asymmetrical cost savings compared to the paltry loss of VAT revenue that would be gained.

I urge the state to take seriously the unique collective viewpoint that myself and fellow NTOI members have gained from years of practicing with members of the public and seeing the great results that are possible when people empower themselves.

In the interest of the common good, and of the fiscal well being of the state itself, we ask the government to reconsider its position to introduce VAT on food supplements, or to favour the position of leaving it at the Zero rate.

Sincerely,



Appendices:

Examples of popular supplements and their health benefits:

Eye Health:

Research published in top peer-reviewed eye journals* has shown that a supplement containing all three macular **carotenoids; lutein, zeaxanthin and meso-zeaxanthin,** can uniquely enrich our protective macular pigment. Macular pigment is solely of dietary origin and is our body's natural filter for high energy blue light at the macula. This harsh, unavoidable blue light is found in sunlight, car headlights, televisions, laptop and mobile phone screens, amongst other sources.

The three ingredients found in **MacuShield** are carotenoids - powerful antioxidants which will help neutralize free radicals. The MacuShield formula is uniquely designed to replenish the macular pigment at the back of the eye.

Trust me, I'm a Doctor
Fri 9th September 2016

We already know that supplements can significantly reduce the risk of developing macular degeneration in later life but this episode tested them over a 5 week period. In that short time, he demonstrated improvements in his eyesight.

Fish oil: is one of the most commonly consumed dietary supplements. It's rich in omega-3 fatty acids, which are very important for your health. If you don't eat a lot of oily fish, taking a fish oil supplement could help you get enough omega-3 fatty acids.

Fish oil is the fat or oil that's extracted from fish tissue.

It usually comes from oily fish, such as herring, tuna, anchovies, and mackerel. Yet it's sometimes produced from the livers of other fish, as is the case with cod liver oil.

The World Health Organization (WHO) recommends eating 1–2 portions of fish per week. This is because the omega-3 fatty acids in fish provide many health benefits, including protection against a number of diseases.

However, if you don't eat 1–2 servings of fish per week, fish oil supplements can help you get enough omega-3s.

Around 30% of fish oil is made up of omega-3s, while the remaining 70% is made up of other fats. What's more, fish oil usually contains some vitamin A and D.

It's important to note that the types of omega-3s found in fish oil have greater health benefits than the omega-3s found in some plant sources.

The main omega-3s in fish oil are eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA), while the omega-3 in plant sources is mainly alpha-linolenic acid (ALA).

Although ALA is an essential fatty acid, EPA and DHA have many more health benefits (1 Trusted Source, 2 Trusted Source).

It's also important to get enough omega-3s because the Western diet has replaced a lot of omega-3s with other fats like omega-6s. This distorted ratio of fatty acids may contribute to numerous diseases (3 Trusted Source, 4 Trusted Source, 5 Trusted Source, 6 Trusted Source).

1. May Support Heart Health

Heart disease is the leading cause of death worldwide (7 Trusted Source).

Studies show that people who eat a lot of fish have much lower rates of heart disease (8 Trusted Source, 9 Trusted Source, 10 Trusted Source).

Multiple risk factors for heart disease appear to be reduced by consumption of fish or fish oil. The benefits of fish oil for heart health include:

- **Cholesterol levels:** It can increase levels of "good" HDL cholesterol. However, it does not appear to reduce levels of "bad" LDL cholesterol (11 Trusted Source, 12 Trusted Source, 13 Trusted Source, 14 Trusted Source, 15 Trusted Source, 16 Trusted Source).
- **Triglycerides:** It can lower triglycerides by about 15–30% (16 Trusted Source, 17 Trusted Source, 18 Trusted Source).
- **Blood pressure:** Even in small doses, it helps reduce blood pressure in people with elevated levels (19 Trusted Source, 20 Trusted Source, 21 Trusted Source).
- **Plaque:** It may prevent the plaques that cause your arteries to harden, as well as make arterial plaques more stable and safer in those who already have them (22 Trusted Source, 23 Trusted Source, 24 Trusted Source).
- **Fatal arrhythmias:** In people who are at risk, it may reduce fatal arrhythmia events. Arrhythmias are abnormal heart rhythms that can cause heart attacks in certain cases (25 Trusted Source).

Although fish oil supplements can improve many of the risk factors for heart disease, there is no clear evidence that it can prevent heart attacks or strokes (26 Trusted Source).

SUMMARYFish oil supplements may reduce some of the risks associated with heart disease. However, there is no clear evidence that it can prevent heart attacks or strokes.

2. May Help Treat Certain Mental Disorders

Your brain is made up of nearly 60% fat, and much of this fat is omega-3 fatty acids. Therefore, omega-3s are essential for normal brain function (27 Trusted Source, 28 Trusted Source).

In fact, some studies suggest that people with certain mental disorders have lower omega-3 blood levels (29 Trusted Source, 30 Trusted Source, 31 Trusted Source).

Interestingly, research suggests that fish oil supplements can prevent the onset or improve the symptoms of some mental disorders. For example, it can reduce the chances of psychotic disorders in those who are at risk (32 Trusted Source, 33 Trusted Source).

In addition, supplementing with fish oil in high doses may reduce some symptoms of both schizophrenia and bipolar disorder (33 Trusted Source, 34, 35 Trusted Source, 36 Trusted Source, 37 Trusted Source, 38 Trusted Source).

SUMMARYFish oil supplements may improve the symptoms of certain psychiatric disorders. This effect may be a result of increasing omega-3 fatty acid intake.

3. May Aid Weight Loss

Obesity is defined as having a body mass index (BMI) greater than 30. Globally, about 39% of adults are overweight, while 13% are obese. The numbers are even higher in high-income countries like the US (39 Trusted Source).

Obesity can significantly increase your risk of other diseases, including heart disease, type 2 diabetes, and cancer (40 Trusted Source, 41 Trusted Source, 42 Trusted Source).

Fish oil supplements may improve body composition and risk factors for heart disease in obese people (43 Trusted Source, 44 Trusted Source, 45 Trusted Source).

Furthermore, some studies indicate that fish oil supplements, in combination with diet or exercise, can help you lose weight (43 Trusted Source, 46 Trusted Source).

However, not all studies found the same effect (47 Trusted Source, 48 Trusted Source).

One analysis of 21 studies notes that fish oil supplements didn't significantly reduce weight in obese individuals but did reduce waist circumference and waist-to-hip ratio (49 Trusted Source).

SUMMARYFish oil supplements may help reduce waist circumference, as well as aid weight loss when combined with diet or exercise.

4. May Support Eye Health

Like your brain, your eyes rely on omega-3 fats. Evidence shows that people who don't get enough omega-3s have a greater risk of eye diseases (50 Trusted Source, 51 Trusted Source).

Furthermore, eye health begins to decline in old age, which can lead to age-related macular degeneration (AMD). Eating fish is linked to a reduced risk of AMD, but the results on fish oil supplements are less convincing (52 Trusted Source, 53 Trusted Source).

One study found that consuming a high dose of fish oil for 19 weeks improved vision in all AMD patients. However, this was a very small study (54).

Two larger studies examined the combined effect of omega-3s and other nutrients on AMD. One study showed a positive effect, while the other exhibited no effect. Therefore, the results are unclear (55 Trusted Source, 56 Trusted Source).

NUTRITION

Evidence Based

13 Benefits of Taking Fish Oil

Fish oil is one of the most commonly consumed dietary supplements.

It's rich in omega-3 fatty acids, which are very important for your health.

If you don't eat a lot of oily fish, taking a fish oil supplement could help you get enough omega-3 fatty acids.

Here are 13 health benefits of fish oil.

What Is Fish Oil?

Fish oil is the fat or oil that's extracted from fish tissue.

It usually comes from oily fish, such as herring, tuna, anchovies, and mackerel. Yet it's sometimes produced from the livers of other fish, as is the case with cod liver oil.

The World Health Organization (WHO) recommends eating 1–2 portions of fish per week. This is because the omega-3 fatty acids in fish provide many health benefits, including protection against a number of diseases.

However, if you don't eat 1–2 servings of fish per week, fish oil supplements can help you get enough omega-3s.

Around 30% of fish oil is made up of omega-3s, while the remaining 70% is made up of other fats. What's more, fish oil usually contains some vitamin A and D.

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SUMMARYEating fish may help prevent eye diseases. However, it's unclear whether fish oil supplements have this same effect.

5. May Reduce Inflammation

Inflammation is your immune system's way of fighting infection and treating injuries.

However, chronic inflammation is associated with serious illnesses, such as obesity, diabetes, depression, and heart disease (57 Trusted Source, 58 Trusted Source, 59 Trusted Source).

Reducing inflammation can help treat symptoms of these diseases.

Because fish oil has anti-inflammatory properties, it may help treat conditions involving chronic inflammation (60 Trusted Source).

For example, in stressed and obese individuals, fish oil can reduce the production and gene expression of inflammatory molecules called cytokines (61 Trusted Source, 62 Trusted Source).

Moreover, fish oil supplements can significantly reduce joint pain, stiffness, and medication needs in people with rheumatoid arthritis, which causes painful joints (63 Trusted Source, 64 Trusted Source).

While inflammatory bowel disease (IBD) is also triggered by inflammation, there is no clear evidence to suggest whether fish oil improves its symptoms (65 Trusted Source, 66 Trusted Source).

SUMMARYFish oil has strong anti-inflammatory effects and can help reduce symptoms of inflammatory diseases, especially rheumatoid arthritis.

. May Support Healthy Skin

Your skin is the largest organ in your body, and it contains a lot of omega-3 fatty acids (67 Trusted Source).

Skin health can decline throughout your life, especially during old age or after too much sun exposure.

That said, there are a number of skin disorders that may benefit from fish oil supplements, including psoriasis and dermatitis (68 Trusted Source, 69 Trusted Source, 70 Trusted Source).

SUMMARYYour skin can become damaged by aging or too much sun exposure. Fish oil supplements may help maintain healthy skin.

7. May Support Pregnancy and Early Life

Omega-3s are essential for early growth and development (71 Trusted Source).

Therefore, it's important for mothers to get enough omega-3s during pregnancy and while breastfeeding.

Fish oil supplements in pregnant and breastfeeding mothers may improve hand-eye coordination in infants. However, it's unclear whether learning or IQ are improved (72 Trusted Source, 73 Trusted Source, 74 Trusted Source, 75 Trusted Source, 76 Trusted Source).

Taking fish oil supplements during pregnancy and breastfeeding may also improve infant visual development and help reduce the risk of allergies (77 Trusted Source, 78 Trusted Source).

SUMMARY Omega-3 fatty acids are vital for an infant's early growth and development. Fish oil supplements in mothers or infants may improve hand-eye coordination, although their effect on learning and IQ is unclear.

8. May Reduce Liver Fat

Your liver processes most of the fat in your body and can play a role in weight gain.

Liver disease is increasingly common — particularly non-alcoholic fatty liver disease (NAFLD), in which fat accumulates in your liver (79 Trusted Source).

Fish oil supplements can improve liver function and inflammation, which may help reduce symptoms of NAFLD and the amount of fat in your liver (80 Trusted Source, 81 Trusted Source, 82 Trusted Source, 83 Trusted Source).

SUMMARY Liver disease is common in obese individuals. Fish oil supplements may help reduce fat in your liver and symptoms of non-alcoholic fatty liver disease.

9. May Improve Symptoms of Depression

Depression is expected to become the second-largest cause of illness by 2030 (84 Trusted Source).

Interestingly, people with major depression appear to have lower blood levels of omega-3s (29 Trusted Source, 85 Trusted Source, 86 Trusted Source).

Studies show that fish oil and omega-3 supplements may improve symptoms of depression (87 Trusted Source, 88, 89).

Moreover, some studies have shown that oils rich in EPA help reduce depressive symptoms more than DHA (90 Trusted Source, 91 Trusted Source).

SUMMARYFish oil supplements — especially EPA-rich ones — may help improve symptoms of depression.

10. May Improve Attention and Hyperactivity in Children

A number of behavioral disorders in children, such as attention deficit hyperactivity disorder(ADHD), involve hyperactivity and inattention.

Given that omega-3s make up a significant proportion of the brain, getting enough of them may be important for preventing behavioral disorders in early life (92).

Fish oil supplements may improve perceived hyperactivity, inattention, impulsiveness, and aggression in children. This may benefit early life learning (93, 94, 95, 96 Trusted Source).

SUMMARYBehavioral disorders in children can interfere with learning and development. Fish oil supplements have been shown to help reduce hyperactivity, inattention, and other negative behaviors.

11. May Help Prevent Symptoms of Mental Decline

As you age, your brain function slows down, and your risk of Alzheimer's disease increases.

People who eat more fish tend to experience a slower decline in brain function in old age (97 Trusted Source, 98 Trusted Source, 99 Trusted Source).

However, studies on fish oil supplements in older adults haven't provided clear evidence that they can slow the decline of brain function (100 Trusted Source, 101 Trusted Source).

Nevertheless, some very small studies have shown that fish oil may improve memory in healthy, older adults (102 Trusted Source, 103).

SUMMARYPeople who eat more fish have slower age-related mental decline. However, it's unclear if fish oil supplements can prevent or improve mental decline in older adults.

12. May Improve Asthma Symptoms and Allergy Risk

Asthma, which can cause swelling in the lungs and shortness of breath, is becoming much more common in infants.

A number of studies show that fish oil may reduce asthma symptoms, especially in early life (104 Trusted Source, 105 Trusted Source, 106 Trusted Source, 107 Trusted Source).

In one review in nearly 100,000 people, a mother's fish or omega-3 intake was found to reduce the risk of asthma in children by 24–29% (108 Trusted Source).

Furthermore, fish oil supplements in pregnant mothers may reduce the risk of allergies in infants (109).

SUMMARYA higher intake of fish and fish oil during pregnancy may reduce the risk of childhood asthma and allergies.

13. May Improve Bone Health

During old age, bones can begin to lose their essential minerals, making them more likely to break. This can lead to conditions like osteoporosis and osteoarthritis.

Calcium and vitamin D are very important for bone health, but some studies suggest that omega-3 fatty acids can also be beneficial.

People with higher omega-3 intakes and blood levels may have better bone mineral density (BMD) (110 Trusted Source, 111 Trusted Source, 112 Trusted Source).

However, it's unclear whether fish oil supplements improve BMD (113 Trusted Source, 114 Trusted Source).

A number of small studies suggest that fish oil supplements reduce markers of bone breakdown, which may prevent bone disease (115 Trusted Source).

SUMMARY Higher omega-3 intake is associated with higher bone density, which could help prevent bone disease. However, it's unclear whether fish oil supplements are beneficial.

Vitamin B12 - Sufficient B12 Intake Lowers Homocysteine Levels

Homocysteine is a non-protein amino acid created as a by-product through the metabolism of methionine and cysteine.

Unfortunately, a wealth of research, including systematic reviews, strongly associates high homocysteine levels with cardiovascular disease (19, 20).

There are also strong associations between homocysteine and dementia as well as age-related macular degeneration (21, 22, 23).

Interestingly, a consistent link exists between low levels of vitamin B12 and higher plasma homocysteine (24, 25, 26).

A randomized controlled trial supports these associations too.

In a trial featuring 140 participants with high blood levels of homocysteine, eight weeks of vitamin B12 supplementation "*significantly reduced*" homocysteine levels (27).

Probiotics and health:

Probiotics comprise a large number of different strains of bacteria and other microorganisms, such as yeasts. When taken in adequate amounts, these live microorganisms can have measureable biological effects in the body and may confer health benefits. Probiotics have been consumed for thousands of years, and are now widely available for consumers in various forms, including capsules and dairy products such as live yogurt and yogurt drinks.

Strains from the bacterial genus *Lactobacillus* and *Bifidobacterium* are the probiotics most often present in products and experts in the field suggest that many well studied *Lactobacillus* and*Bifidobacterium* species can be expected to have 'generic' or 'core' effects on gut physiology and health by creating a more favourable environment in the gut, through mechanisms shared by most probiotics. Furthermore, dietary guidelines in Estonia, Italy, Germany, Poland and Spain specifically recommend the addition of probiotics to the diet. However, the use of the word probiotic to describe products for sale in the EU has been banned, as the term is classed as a 'generic descriptor' which could imply an effect on health and no specific health claims have been permitted by the European Food Safety Authority in relation to any probiotics.

The results of scientific studies looking into the health effects of probiotics periodically hit the headlines, with suggested benefits including reducing hay fever symptoms and preventing antibiotic-associated gastrointestinal upset. Much of the research into probiotics focusses on specific health conditions, particularly those relating to the gut, such as irritable bowel syndrome and ulcerative colitis but emerging research suggests bioactivity reaching systems beyond the gut, such as modulating blood pressure, cholesterol, blood glucose and even cognitive function. Some research points specifically towards potential health effects in healthy individuals, including reducing the duration of a cold and improving very mild symptoms (such as abdominal pain and bloating) in individuals without a diagnosed gastrointestinal condition. These health effects are explored in more detail in an article in *Nutrition Bulletin*.

Probiotics is a complex area and when considering the results of research in this field it is important to take a number of factors into account:

- Probiotics encompass a wide range of bacterial strains

Describing the effects of probiotics in general can be misleading because health effects may be specific to a single strain of bacteria, therefore grouping together the results of

studies which have used different strains (or different combinations of strains) is likely to be unhelpful in determining health effects and could paint a distorted picture of the evidence. It is important to remember that each single strain has to be tested for each single health outcome before firm conclusions can be drawn. In addition, responses to probiotics can vary between individuals due to physiological differences, such as the baseline composition of the gut microbiota, therefore the number of subjects in each study needs to be sufficiently large to account for this.

- Probiotics must be taken regularly and survive their passage through the gastro-intestinal tract

To be effective and have an impact on health, probiotics must be able to survive the harsh conditions (particularly the acid in the stomach) during their passage through the intestinal tract. Survival rates tend to vary between different strains. Probiotics which do manage to recover and grow in the intestine can then influence the composition and activity of the gut microflora but in order to integrate into the gut microbiota (though transiently), probiotic strains need to be taken frequently, as they generally only persist in the gut for a short time.

- The vehicle by which probiotics are delivered, and dose, are also important

It is also important to investigate whether probiotics are able to deliver health benefits in the vehicle through which they are delivered (e.g. capsules, dairy products) and the dose is sufficient to allow the probiotic to exert a health effect. Regulators in Canada and Italy have suggested that ingesting 10^9 viable colony forming units of a specific strain per day is required.

Key references

Derrien, M. and J. E. T. van Hylckama Vlieg (2015). "Fate, activity, and impact of ingested bacteria within the human gut microbiota." Trends in Microbiology 23(6): 354-366.

Hill, C., F. Guarner, *et al.* (2014). "Expert consensus document: The International Scientific Association for Probiotics and Prebiotics consensus statement on the scope and appropriate use of the term probiotic." Nat Rev Gastroenterol Hepatol 11(8): 506-514.

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Smug, L., S. Salminen, *et al.* (2014). "Yoghurt and probiotic bacteria in dietary guidelines of the member states of the European Union." Beneficial microbes 5(1): 61-66.

Last reviewed May 2017.