

DuoLife

# Collagen Powder

Food supplement

**DuoLife Collagen Powder** is an orange-cranberry flavoured food supplement in the form of sachets containing natural ingredients only. The preparation is composed of natural ingredients of the highest quality. It contains a very high dose of collagen. Moreover, the formula was enriched by New Zealand green-lipped mussel extract, bladderwrack extract, natural vitamins E and D3, and protected formula obtained from inactivated *Saccharomyces cerevisiae* yeast cells standardised for selenium content. Unique composition of DuoLife Collagen Powder food supplement supports optimal health of the osteoarticular system, skin, hair, and nails, as well as normal functioning of the thyroid gland.



The power of powder



Better together



Complementary



Always with you



100% natural



Unique

## When to use DuoLife Collagen Powder?

Seas and oceans are one of the richest sources of nutrients, minerals, and vitamins that are of key importance and value to our bodies. DuoLife Collagen Powder is a blend of three raw materials obtained from seas and oceans: saltwater fish skin collagen, New Zealand green-lipped mussel extract and bladderwrack extract standardised for 0.1% iodine content. Moreover, the product was enriched with naturally sourced vitamins E and D3, as well as protected formula obtained from inactivated *Saccharomyces cerevisiae* yeast cells standardised for selenium content. DuoLife Collagen Powder food supplement is designed to support optimum body functions in:

- ▶ those taking care of proper functioning of the articular system – bones, joints, ligaments, muscles and tendons;
- ▶ those engaging in vigorous workouts, experiencing muscle fatigue after exercise;
- ▶ those wishing to support optimal functioning of the osteoarticular system on a daily basis;
- ▶ those wishing to maintain a youthful appearance of their skin;
- ▶ those wishing to support the maintenance of optimal hair and nails health;
- ▶ those wanting to support proper thyroid function;
- ▶ those wishing to support proper functioning of the immune system;
- ▶ those wishing to support optimal metabolism;
- ▶ those in the period of growth;
- ▶ women during menopause;
- ▶ men wishing to support optimal fertility;
- ▶ convalescents after joint injuries;
- ▶ the elderly/seniors.

## How does DuoLife Collagen Powder work and how to use it?

The ingredients of the DuoLife Collagen Powder food supplement support:

- ▶ proper functioning of the osteoarticular system;
- ▶ optimal functioning of bones, articular cartilage, ligaments and tendons;

- ▶ muscle functions;
- ▶ skin well-being, helping to maintain its firmness and elasticity;
- ▶ hair and skin well-being;
- ▶ normal thyroid function;
- ▶ optimal functioning of the immune system;
- ▶ metabolism and gastrointestinal passage;
- ▶ antioxidative processes;
- ▶ optimal male fertility.

**i** **Instructions for use:**

1 sachet a day. Dissolve the contents of the sachet in a glass of water or other cool liquid and mix well. It can also be mixed with food. Consume immediately after preparation. Do not exceed the recommended maximum daily dose.

Food supplements should not be a substitute for a varied diet. A balanced diet and healthy lifestyle are essential for the proper functioning of the body.

In case of any doubts regarding the use of the food supplement, please consult a doctor or a pharmacist.

**i** **Ingredients:** saltwater **fish** skin collagen, acidity regulator: citric acid, natural orange flavour, colour additive: beetroot red, New Zealand green-lipped **mussel** (*Perna canaliculus*) extract, including 2% glycosaminoglycans (GAGs), proprietary formula derived from inactivated *Saccharomyces cerevisiae* yeast cells, standardised for selenium content, 5:1 bladderwrack (*Fucus vesiculosus*) extract standardised for 0.1% iodine content, natural vitamin E (D-alpha-tocopheryl succinate), natural vitamin D3 (cholecalciferol), anti-caking agent – silicon dioxide (from rice), natural cranberry flavour, sweetener: steviol glycosides from stevia.

Active ingredients content in the daily dose of the product	1 sachet (10.8 g)
Collagen from saltwater <b>fish</b> skin	9 g
New Zealand green-lipped <b>mussel</b> ( <i>Perna canaliculus</i> ) extract	100 mg
Proprietary formula derived from inactivated <i>Saccharomyces cerevisiae</i> yeast cells	55 mg
including selenium	55 µg (100% NRV*)
Bladderwrack ( <i>Fucus vesiculosus</i> ) extract 5:1	40 mg
including iodine	40 µg (27% NRV*)
Natural vitamin E (D-alpha-tocopheryl succinate)	12 mg (100% NRV*)
Natural Vitamin D3 (cholecalciferol)	25 µg = 1,000 IU (500% NRV*)

\* NRV – Nutrient Reference Value for an average adult.

The herbal extract contained in the formula has a **ratio of 5:1 next to its name – this is the so-called DER – what does it mean?**

**DER (drug extract ratio)** specifies a number of milligrams of the plant material used to obtain one milligram of the extract. If the sachet contains 40 milligrams of bladderwrack extract (or other herbal extract) DER 5:1, this means that 200 milligrams of raw material were used to obtain one portion.

## Saltwater fish skin collagen, New Zealand green-lipped mussel extract and bladderwrack extract – the richness of seas and oceans for supporting optimal functioning of the osteoarticular and immune systems, good condition of skin, hair, and nails, and normal thyroid function

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Collagen is a basic protein that makes connective tissue. It is a key building block of skin, cartilage, and bones. Starting at the age of 25–30, collagen production in our body decreases. As we age, the process intensifies; from around the age of 60, the body does not produce any endogenous collagen<sup>1</sup>. Increased physical activity and engaging in extreme sports, hormonal changes, excess exposure to sun, inclement weather may accelerate the breakdown of collagen fibres, which weakens the osteoarticular system. The skin loses its firmness and first wrinkles are becoming visible.

Collagen supplementation fosters normal joint function and maintenance of physiological function of the articular cartilage and its regeneration<sup>2,3</sup>. It also supports skin barrier function, increases skin density, helps prevent dehydration and reduce the signs of ageing<sup>4</sup>.

**New Zealand mussel** (*Perna canaliculus*), also known as **green-lipped mussel**, is a mussel with greenish colour that is native to New Zealand coast. Thanks to **high content of glycosaminoglycans (GAGs)**, New Zealand mussel fosters the functioning of the osteoarticular system and delivers nutrients to the cartilage and synovial fluid, thus supporting their regeneration. It also promotes joint mobility. The mussel is also a valuable source of omega-3 acids, vitamins A, C, E, D, and group B vitamins, as well as minerals such as iron, calcium, sodium, potassium, phosphorus, selenium.

**Glycosaminoglycans (GAG)**, along with collagen and elastic fibres, make up the extracellular matrix. The extracellular matrix fills the intercellular spaces, significantly influencing cell condition, flexibility, elasticity and resilience. It also allows for the circulation of the interstitial fluid that has a nutritious function for cartilage and connective tissue proper<sup>5</sup>. The function of glycosaminoglycans, therefore, is to provide a sort of “scaffolding” for collagen and elastic fibres. That’s why supplementing them is equally important as supplementing collagen. Glycosaminoglycans include also chondroitin sulphate and hyaluronic acid that can be found in DuoLife Collagen Liquid Formula food supplement.

**Bladderwrack** (*Fucus vesiculosus*) is a seaweed; a green-brown algae rich in iodine and polysaccharides (fucoidans, laminarin, and alginates). It is also a source of dietary fibre and minerals such as magnesium, sodium, potassium, calcium, manganese, zinc, phosphorus, copper and vitamins: A, C, and group B vitamins<sup>6</sup>. Thanks to **iodine** content, bladderwrack fosters normal thyroid function. Fibre found in the algae supports metabolism and gastrointestinal passage, and promotes regular bowel movements. Thanks to fucoidan – a polysaccharide found in abundance in cellular walls of brown algae – it helps alleviate inflammations and supports antioxidative processes<sup>7,8</sup>.

**Iodine** is a micronutrient necessary for proper body functioning and synthesis of thyroid hormones – thyroxine (T4) and triiodothyronine (T3). These hormones regulate numerous important physiological processes. They increase basal metabolic rate, regulate carbohydrate and lipid metabolism, boost the synthesis of protein (including collagen and elastin) and enzymes. The hormones also foster body growth and central nervous system development. Moreover, they participate in cell respiration and energy production processes, which makes them necessary in the process of regulating body temperature, pulse, and blood pressure<sup>9,10</sup>.

## Why collagen from saltwater fish skin?

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**Collagen sourced from saltwater fish skin** is characterised by lower molecular size compared to collagen recovered from skins of farm animals, making it better absorbed from the digestive tract<sup>11</sup>. The collagen found in DuoLife Collagen Powder food supplement is in the **form of a polypeptide hydrolysate with lower molecular weight (on average, 2,000 Da)**. It is a source of amino acids, including exogenous, and their di- and tripeptides, which are well absorbed from the gastrointestinal tract. After penetrating into the bloodstream, amino acids and peptides are distributed to the skin, cartilages and other connective tissue structures, where they are a substrate for the synthesis of natural collagen and induce the biosynthesis of hyaluronic acid. Hydrolysed collagen has

a clinically proven effect contributing to minimising bone and joint inflammation, fostering normal functioning and regeneration of the articular cartilage<sup>12,13</sup>.

## Selenium and vitamin E – the antioxidants of youth and thyroid function support

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The **formula of the preparation with standardised content of selenium** is obtained in the process of fermentation and then inactivation of special lines of *Saccharomyces cerevisiae* yeast. Yeast – a natural wealth of many vitamins and minerals – is cultured and additionally nourished, and then processed and dried under mild conditions, which allows the interaction of preserved vitamins and nutrients with the natural yeast matrix, which is their “biological background” and guarantees their durability and quality. The resulting final product contains a complex of natural, perfectly digestible nutrients with a specific, standardised amount of organic zinc.

**Selenium** is a micronutrient essential for normal body functioning. It can be found in two amino acids: selenomethionine and selenocysteine. Selenium fosters antioxidative processes, supports optimal functioning of the immune system, contributes to normal thyroid function and proper spermatogenesis. It also helps maintain good hair and nail condition<sup>14,15</sup>.

## Vitamin E

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**Tocopherols (including vitamin E)** belong to a group of strong antioxidants, thus helping protect the body against negative consequences of oxidative stress and cell damage. They also foster optimal function of the cardiovascular system<sup>16</sup>. Vitamin E is called **the vitamin of youth**, as it prevents early cell ageing and delays skin ageing processes by fostering collagen synthesis. Vitamin E supports the reproductive system function in both women and men. In females it boosts ovulation, while in men it fosters sperm and hormone production. That's why it's often called **the fertility vitamin**<sup>17</sup>.

## Vitamin D3 – when sun is not enough...

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**Vitamin D3** has numerous health benefits for the body. Vitamin D3 is responsible for calcium and phosphate metabolism in the body, supports the mineralisation of bone tissue and teeth, increases the absorption of calcium and phosphates in kidneys, helps maintain normal calcium levels in blood. It also helps maintain normal function of the immune system, muscles, cardiovascular system and nervous system<sup>18–23</sup>.

**Vitamin D3** is synthesised in the skin under solar radiation, only when necessary. People with little sun exposure, susceptible to infections, elderly people and women after the menopause may require vitamin D3 supplementation throughout the year<sup>24,25</sup>.

## Do you know that the sweetener used in the sachets is natural and has valuable properties?

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**Steviol glycosides** are completely natural sweeteners. Stevia (*Stevia rebaudiana*) is a plant that has been used in South America for centuries. Steviol glycosides are a group of valuable plant-based ingredients. They are 300 to 400 times sweeter than sugar and that is why they are added to DuoLife Collagen Powder in very small amounts. Steviol glycosides have zero calories and are not absorbed in the human gastrointestinal tract<sup>26</sup>. Scientific research has shown that stevia can be safely used in the daily diet. There is no doubt that bringing stevia to the Polish food market is the first step towards changing bad dietary habits associated with the overuse of sugar in the everyday diet<sup>27</sup>.

## What makes DuoLife Collagen Powder so special?

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- ▶ **100% natural formula.**
- ▶ Exceptionally high **dose of collagen – 9 g per 1 sachet!**

- ▶ The formula includes **5 other natural active substances apart from collagen.**
- ▶ Support for **locomotor system and beautiful skin, but also THYROID function!**
- ▶ Product **complementary with Collagen Liquid Formula**, but **with completely different composition! – simultaneous supplementation of both products is valuable.**
- ▶ **Better together – use together with DuoLife Collagen** and support your body with the full spectrum of ingredients. The liquid form allows you to use the full biological background in the form of fruit juices – sources of vitamins, minerals, and antioxidants. The sachets are a treasure trove of concentrated active ingredients, in high portions for optimal absorption.
- ▶ **Synergic** action of all ingredients.
- ▶ The product is intended for a wide group of users: children over 12 years of age, adults, and the elderly.
- ▶ **Convenient form of use – ready doses in sachets** to be added directly to water or any other cool liquid. It can also be mixed with food.
- ▶ The product **CONTAINS NO artificial fillers and is GMO free.**
- ▶ The product **CONTAINS NO artificial flavourings and aromas.**
- ▶ The product is **GLUTEN-FREE** – it can be used by people with gluten intolerance.
- ▶ Natural aromas, colourants, and natural sweetener only.
- ▶ Umbrella brand – the effect of the liquid form is complemented by cosmetics with a high naturalness index from the DuoLife Beauty Care Collagen line.

❶ *Reference list for DuoLife Collagen Powder formulation can be found in the separate sheet of the binder.*

## References

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