yaeyama
Chlorella Growth Factor
(C.G.F.)
100% From Japan

The world's best CGF for immunity, cell renewal, growth and many health benefits.
A great product that attracts scientists, researchers and doctors.
Yaeyama, a world authority on Chlorella and CGF
What is C.G.F

CGF (Chlorella Growth Factor) is a hot water extract from Chlorella which many scientists and researchers have discovered it promotes the growth of animals and micro-organisms.

CGF contains nucleotide-peptide, glycoprotein, nucleic acid - polysaccharides and sulphur, for body's growth, immunity, other health benefits and peak health condition. Its scientific and unique component structure is still under research by many scientists, scholars and doctors and attracting many people in the world. Its nucleotide - peptide has anti-cancer properties.

CGF is almost tasteless and odourless, improving food taste and increase the growth of lactobacillus found in health and seasoning food such as lactic acid beverage, natto, miso, soy sauce, and soybean paste.

CGF is only found in Chlorella, a green single cell micro-algae among the vegetable kingdom, which is also among the family of kelps like Wakame, Kombu and Ao-nori.

What are the health benefits of CGF

Researchers found that CGF is a powerful enhancer of immunity, growth and development to the young, and as a retardant of ageing.

One key distinctive function of CGF is immunity. CGF prevents virus from growing, increases body's resistance against infection of diseases and also controls the cancer cells in our body.

CGF helps stimulate tissue and genetic material repair, protect and support cellular functions, improve nutrient intake, regulate production of enzymes, regain energy, protect cells against toxin, improve bowel function and improve memory.

It was reported that CGF helps lower blood pressure, improve liver function, improve blood counts, regulate blood sugar level, renew cells, quicken healing of stomach ulcer and skin disorders, heal anaemia, remove constipation and headache, resist cold, restore body energy, and create appetite.

CGF extract is easily assimilated, passing through the stomach and immediately enter into the intestines to be absorbed into the body and cell system for quick recovery. However, Chlorella tablets will take a few hours to digest before assimilation can take effect.
How does CGF increase immunity

CGF stimulates T cells against viruses and cancer, B cells against bacteria, and macrophages against cancer, foreign protein and chemicals. CGF stimulates interferon production, macrophages, secretion of tumour necrosis factor (TNF) and fibroblast activity. It enhances the activity of Natural Killer (NK) cells, slows down the ageing process, extends mice’s life to over 30%.

Do Chlorella tablets have CGF

Yes, Chlorella tablets and powder have up to 25% CGF. Degree of CGF depends on the quality of Chlorella on how it is cultivated and how impurities, protein and contamination are being filtered during the extraction.

Besides CGF, Chlorella has the highest chlorophyll which many researchers have found effective for blood cleansing and to prevent blood oxidation, so that oxygen and nutrient can be carried by the blood to build healthy cells and body. Researchers also discovered chlorophyll is useful in the treatment of cancer. The distinguished cell walls also stimulate interferon and promote peristaltic movements. Together with CGF and chlorophyll, they promote body cleansing, building and defence, improves your body system, blood circulation and cell renewal.

Chlorella is an organic vegetable and a natural whole food, rich also in vitamins especially B 12, minerals especially iron, calcium, magnesium and potassium, protein, carbohydrates, essential amino acids, for body’s optimum health and removal of heavy metals. Just 2 g Chlorella equals 80 g protein of daily consumption.

Chlorella is an edible cosmetic to alkaline body’s beauty and smoothness, just like the alkaline skin of babies. Chlorella is ideal for growing children, building muscles than fat for adults, helpful to babies’ milk intolerance. Get a Chlorella brochure from us to visualise what Chlorella can help to improve and maintain your health.

How does CGF increase blood count and cell renewal

Chlorella has asexual reproduction system. It divides into 4 cells daily and the cells grow through photosynthesis process with solar energy and carbon dioxide in fresh water. It can grow so energetically to cover the whole earth in 63 days, theoretically. Chlorella can produce 50 times more food than other grains by its photosynthesis process.
Chlorella cell is almost the same size as the human red blood corpuscle with nucleic acids that will help our DNA and RNA. It has its own organs and functions to live independently.

In the treatment of cancer, gamma ray and antibiotics are often employed. These treatments have often side effects which reduce the number of white blood cells. Dr. Saito conducted clinical test studies, and together with gamma ray and antibiotics, he gave Chlorella to the patients. He found that it prevented the reduction of white blood cells, improved the blood count and recovery rate.

Are all brands of CGF have the same quality and density. How do you determine which CGF is good

CGF is measured by the ultra violet absorption spectrum which shows its peak at 260 nm and its valley at 230-240 nm. It determines the optical density (OD) of CGF at the level of 260 nm. The maximum purity is OD 100.

Please note that even at OD 100, the quality of CGF may not be the same as shown in picture 1 below:

Picture 1: CGF with Brand A & B

![Graph showing optical density (OD) against nm for two brands of CGF](attachment:graph.png)
CGF in Brand A is better than B as its height (h) between peak and valley is higher in picture 2 than 3.

This shows that Brand A has reading of 50 while B has 85 at 230-240 nm. At this level, there is no CGF at all except at 260 nm. Brand A is the purified extract while B is the crude extract, containing impurities, contamination and protein in the CGF which is not pure. In same way, if pure CGF is decomposed, its valley will get closer to the level in picture 3 and becomes inferior.

Another way to determine the quality of CGF is through boiling the CGF solution. Picture 4 shows that the height remains the same before and after boiling as in 2. This means that the CGF quality is superior as the molecular structure is stable against heat and acids. However, if the height changes after boiling as in picture 5 from picture 2, this means that the molecular volume has decreased, because the peptide has been reduced or unstable after boiling.
Why is CGF and Chlorella from Yaeyama so distinguished

Yaeyama is the world pioneer and a world authority on the standards of Chlorella and CGF. It has the highest grade of CGF at OD 100 without impurities, contamination and protein compared to any other brand of CGF as shown in picture 6.

The reasons is very simple. The quality of CGF depends on the quality of Chlorella. Most of the so-called Made-in-Japan Chlorella are in fact from Taiwan, Indonesia and even China, and imported into Japan, repacked and/or processed in Japan before exporting as Made-in-Japan. Now these Chlorella have poor quality and environmental controls with less stricter health standards and inspections. The impurities and contamination can be seen through electron microscope pictures as shown in Fig. 1 below and will affect the quality of your CGF:

Figure 1:

Yaeyama Chlorella with consistent cells

Other chlorella with impurities, binders, other algae, even oxidation.

As shown in Fig. 1, Yaeyama Chlorella has no contamination at all with pure and consistent Chlorella cells, while others are not and may even be oxidised. Also, Yaeyama Chlorella is 100% pure without binders due to our technology, unlike most which require binders.
Yaeyama Chlorella is distinguished because it is the only one grown outdoor in unpolluted coral reef island of Ishigaki, off Okinawa, Japan, with strict quality inspection and standards higher than Japan Health Food Association (JHFA). Our CGF is higher than any other brand (OD110) as shown in picture 7.

![Picture 7: Yaeyama CGF Superior Quality](image)

The digestibility of our Chlorella tablets is over 80% and the only Chlorella given special award by Okinawa Governor. Outdoor Chlorella is preferred over indoor as the latter has almost half the CGF and other nutrients due to electrical instead of sun power. It is important to know whether you are buying an outdoor or indoor Chlorella which is not popular in Japan.

With the Product Liability Law passed in Japan in 1995, most Japanese consumers are now aware that Yaeyama Chlorella has the best quality and the products are retailed in prestigious supermarkets, departmental stores, and even in Co-Operative Agricultural Society. Since the law passed, sales of imported Chlorella from overseas into Japan have declined dramatically as consumers know the difference.

**What are the ingredients in the CGF bottle**

In one bottle of CGF of 720 ml, it contains Chlorella Extract Liquid, Glucose, Fructose, Honey, Oligo Sugar (polysaccharides better than glucose and fructose), with no preservatives or additives.
Who will benefit CGF and how do you take it

CGF has a special interest for energising the young, the health conscious, the senior citizens to prevent ageing, the chronic conditions, and those undergoing chemotherapy and stress.

Take CGF half an hour before meal or 2 hours after meal for maximum and speedy assimilation. For normal maintenance, take one cup of 20 cc in the morning. For serious needs, take between 3 to 6 cups a day, divided into 2 or 3 times a day. For children below 12 years, take normal half a cup daily or at most one cup subject to body's condition.

For more efficacy, take Chlorella tablets with CGF. Chlorella tablets contain whole food with high protein, unsaturated fatty acids, polysaccharides, carbohydrates, amino acids, nucleic acids, minerals, anti-oxidant vitamins A (Beta Carotene), B1 - 2 - 6 - 12, C & E with CGF.

Once opened, transfer CGF to smaller bottle for daily use, be refrigerated or in cool place. Shelf life - 2 years.

YAEOYAMA, A WORLD AUTHORITY ON CHLORELLA & CGF QUALITY

What are some research reported on CGF and Chlorella

1984  Fumiko: increase of anti-tumour resistance with Chlorella
1985  Fumiko: resistance to Meth - A tumour growth with CGF
1985  Henryh Murray and others: activation of mouse peritoneal macrophages by interferon with Chlorella
1988  Gerald Shklar and others: tumour necrosis factor in experimental cancer regression with CGF
1990  Takashi - H and others: accelerated restoration of the leukocyte number and increased resistance against E - Coli with CGF
1990  Fumiko and others: enhanced resistance against E - Coli infection with CGF on treated rats
1995  Immunopharmac: CGF reduced opportunistic infection on mice infected with murin leukemia virus
1990  Ibusuki - k & Minamishima Y: anti-viral effect of CGF against MCMV infection, decreased in infectious viruses, protection against organ damage, elevated activity of interferon
1985  Third International Congress of Developmental and Comparative Immunology, France: immodulation of Chlorella and anti-tumour activities for tumour bearing mice

1984  Immunother: increase anti-tumour resistance of Chlorella against breast and liver cancer in mice

1943  Arch. Dermatol. Syphilol: chlorophyll in treatment of ulcers

Dr Guskin: review of 1200 cases benefited or cured by application of chlorophyll solutions. These included acute infections of upper respiratory tract and sinuses, chronic ulcerative lesions of various types

Dr Goldberg: 300 patients improved by chlorophyll on bleeding of gums

1956  Gastroenterology: effective management of offensive odours with chlorophyll

1944  Smith: chlorophyll acts to produce unfavourable environment to anaerobic bacterial growth

1978  Cesk Gynekol: significant results from treatment of cervix inflammation with Chlorella and chlorophyll

1966  Chlorella Industry of Japan: resistance against common cold with Chlorella

1983  Masao Kanamori and others at Kyoto Furttsu University Academic: effect of Chlorella on rat to reduce high blood pressure

1979  Hajime Kojima and others at Gifu Medical University: effect of nucleotide - peptide extracted from Chlorella and its function

Japan Medical Association Took Branch: anti - cancer properties of Glycoprotein of Chlorella

1991  Shiro Fukui and others: Ecological reaction of Chlorella with serious diabetes

1982  Japan Agriculture Science Conference: blood pressure lowering substance of CGF

1989  Suguru Mizuno and others of Shizuoka University: carbohydrates of Chlorella lowers blood sugar level

1975  Masao Okuda and others in Nutrition Magazine: effect of Chlorella on serum, liver and cholesterol level

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How does the body’s immune system work

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age. The decrease is a severe blow to the immune system. The T cells may fail to attack bacteria and allow the onset of diseases. Or, the T cells make mistakes by attacking and damaging own cells, an auto-immune disease that attacks own immune system, which can be serious and fatal, leading to multiple sclerosis, rheumatic disorders, arthritis, diabetes, etc.

- the B cell antibody system may make errors by failing to make antibodies against invaders or receive false instruction from the T cells. Those auto-antibodies found especially in old people work against own neurons in the serum, causing neuronal degeneration in ageing, leading to multiple sclerosis, myasthenia gravis, arthritis, etc.

- some macrophages attacked nerve cells in old age. Women, with over active immune system, are more likely to contract such auto-immune disease.

- some due to heredity, have immune systems which are abnormally sensitive to certain harmless substances and over-react to become allergic.

- the organs of liver and kidneys that fail to cope with age, due to the pollution from the air, water and food.

- the continual intake of drugs that weakens the body’s natural healing.

Right nutrients can improve the performance of our immune system whatever our age, provide dramatic relief and improve the ability of T cells to make distinctions of our cells and invader. The size and functional capacity of the thymus gland can be increased by vitamins A, C, E, minerals of zinc and selenium, amino acids of cysteine, arginine, ornithine, hormones-like thymosin, enzymes such as trypsin, bromelain, papain, and the techniques of T cell cloning. Vitamin A alone is able to double its size. Vitamin C increases the activity of certain white blood cells, by being more vigorous to kill invaders or to stimulate other cells to make interferon.