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COLLAGEN  
COLWAY

## COLLAGEN REGENERATING PROGRAMMES

How to look younger for longer

**M**ost people are concerned about their ageing. However, in order to feel better and live longer we need to understand what ageing really means and what looking after ourselves involves.

*It does not necessarily mean a dramatic change of one's lifestyle and spending hours and money in the gym and in beauty clinics. This e-book explains the processes that happen in our body with age and suggests simple and easy changes we can incorporate into our every day routine to maintain youthfulness for longer. It also explains why collagen is becoming tremendously popular in the fight against ageing and how to make the most of its supplementation.*

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## WHY DO WE WANT TO KNOW THE SECRET OF BEING YOUNG, HEALTHY, AND FIT FOR YEARS?

It is now possible to fight many of the diseases that killed people in the past and now there is a demand for medicine to work towards helping people increase their lifespan. However, medicine itself is not enough and there is a lot we can do to help ourselves. The question is how you want to look and feel 10, 20, 30 years...



All of us want to live a long life and nobody wants to age. Some scientists claim that our bodies are programmed to live 120-140 years but how long do we actually live? 70? 80? 90 is a good age!

In addition when we live a long life, the state of our body is the important thing. The questions are – are we fit and healthy and what is our quality of life?

The fact is that we do live longer than before. Surprisingly, in the 15<sup>th</sup> Century the life expectancy for a woman was only 30 years. On average, women lived only 30 years and in this time they gave birth to children, went through illnesses, infections and tiredness from family life – that is if they weren't lucky enough to have servants

Even just a hundred years ago, the average life expectancy in Europe was 50. Fifty years ago it was about 70, and now it has grown to a little more than 80 years. It is a necessity to keep our bodies in the best possible condition to enjoy a long and exciting life.

These days at the age of 40, 50 or 60 we still consider ourselves to be young. There is still so much ahead of us, we know how to fight the diseases that used to kill millions, and the majority of us just love the idea of playing with our grandchildren.

This is why we want to know the secret of longevity.

Luckily, the secret has already been revealed.

How we age and why we age is connected with the protein synthesis and decomposition, and collagen as well. Connective tissue is very important in this process.

Collagen is the foundation of connective tissue. With age, and also due to some external factors e.g. the environment, improper nutrition, injuries, the synthesis of collagen is affected and its production slows down.

Fibroblasts that produce collagen fibres become less active. Collagen fibres get thicker and easier to break, and their amount is lower by 1% annually after the age of 30 and, in addition, these processes start even earlier. When we reach 40, facial lines become visible. But it is important to understand that similar degenerative processes are happening in the body and we don't usually notice them until we experience specific problems – joints and spine degeneration, muscle and tendon stiffness, osteoarthritis, poor eyesight and hearing, varicose veins. In other words – every single cell of your body is getting older and you cannot see it, but you can feel it in your bones! The state of our body collagen indicates a biological age of a person! So, your biological age is determined by the QUALITY of collagen in your body. But when you are 40, 50, 60, or more have you already missed the boat?

It is actually possible to have a healthy, glowing skin and a good general body condition even if you are over 40.

Even if you take care of your looks, are careful about what you eat, and exercise regularly, at some point you might feel that something more is needed. You need to add something 'special' to your everyday routine to ensure you are doing everything possible to keep what time is trying to steal away. Maybe it's because you have just hit that magic age, or you start noticing changes in the mirror instead of just enjoying your life.

The idea is not to make you feel guilty, but to make sure you realize your life and your youth will never be given back to you.

The reality is that the majority of people don't start to try to improve their body and looks until after they notice the signs of ageing, weight gain and wrinkles. Then they panic and turn to plastic surgeons in the hope of a miracle and a quick fix which will reverse the damage that has already been done.

Well, this obviously is an option, and the idea is not really to try to discourage you from doing that, but to give you a better insight into what is really happening in your body when you age. If you follow these guidelines you will hopefully not need to see a plastic surgeon.

To follow are some uncomplicated and feasible actions that will hopefully change into habits which will result in a better body condition, a younger look, brighter eyes, and a more flexible body. I am sure this is an attractive proposition to most of us.

## WHAT HAPPENS IN YOUR BODY WHEN IT'S AGEING

### When you are

#### 25 - 35

- Muscles reach their peak mass
- The peak of physical strength
- The peak of bone density
- Highest levels of blood in the system- 5-5,5 litres
- Straight posture, maximum height
- Firm skin

#### 25 - 35

- First wrinkles appear
- Sense of smell begins to decline
- First degenerative changes in our cells
- Some men start balding

#### Over 40

- Brain begins to age – neurons number dwindles by 10 %
- Long-sightedness develops
- Amount of blood dwindles by 8-9%
- Hair is getting thinner, brittle, greying
- Less muscle tissue, more fatty tissue leading to a gradual loss of stamina, WE ARE GETTING WEAKER...
- Muscles lose strength and flexibility
- Bones shrink in size and density and become more susceptible to fracture
- 60 % of degenerative illnesses of the spine and joints begin

### **Over 50**

- Skin gets saggy, deep wrinkles appear
- Women go through menopause, within 2 years' body collagen decreases by 20%
- Risk of osteoporosis increases
- Facial oval changes
- Male andropause begins – lack of energy, loss of sex drive, erection problems, irritability and mood swings, depression, loss of strength and muscle mass, increased body fat

### **Over 60**

- Physical efficiency drops to 65%
- Motor co-ordination and posture changes
- Lung capacity drops by 25%, poorer oxygen supply, breathing problems – short of breath
- Intellectual abilities decrease- number of neurons dwindles (decline of memory and thinking skills, dementia develops)
- Cells become less active
- Structural changes of proteins in the eye lens may cause cataract
- Long-sightedness develops in 3 out of 4 people
- Arteriosclerosis – hardening (and loss of elasticity) of arteries – develops
- Sleeping problems
- Takes longer to heal injuries

### **Over 75**

- Cortex may diminish by 50%
- Women lose 40% of bone volume, men - 25% (prone to fracture)
- Body motion is slower, posture gets stooping
- Women get shorter by 5cm, men - 3,5 cm
- Loss of liver and kidney tissue up to 30%
- Gradual loss of hearing

### **What does it really mean to be young? It does not necessarily have to be measured in years.**

We all know elderly people who look 20 years younger than they really are. Strong, fit, restless, they hardly ever get ill, and even if they happen to get an injury they regenerate easier and sooner than their grandchildren. They are genetically equipped with a very strong collagen matrix or/and due to a healthy lifestyle, proper nutrition and supplementation their degenerative processes are significantly slower than the average.

On the other hand, poor diet, smoking, passive lifestyle and lack of proper skincare results in us looking much older than we really are.

**What is striking is that death is the ultimate consequence of ageing, though "old age" is not a scientifically recognized cause of death because there is always a more direct**

**cause, such as cancer, heart disease, or liver failure.** It is shocking when we realize that to some extent we *choose* to live shorter lives by not taking proper care of our own health! How long we live may depend on what we eat, if we are active or not, and how we look after ourselves.

**If you feel you would like to change your lifestyle and attitude to feel better – when is the best time to start? Now!**

## HOW TO GET STARTED

Have you ever read the internet stories about a 54-year old mum who turned back the clock and smoothed her wrinkled face in a few days using a £5.99 cream?

Or a magic berry formula which helps to shed 30 pounds in 10 days with no diet change and all you need to do is to take a pill twice daily?

If these solutions were so accessible, cheap, and effective the problem of obesity and wrinkles would no longer exist.

But there is just one simple question – do you know anyone who removed their wrinkles or lost 8 stone in 2 weeks on a magic pill or cream?

If you believe in magic, don't read the rest of this text, but if you want to find out how you can improve the quality of your life, your skin and your body by applying small but proper changes every day to your daily habits, then prepare your diary, take out your trainers and get ready to:-  
**CREATE JUST 1 HOUR DAILY FOR YOURSELF AND PUT IT IN YOUR DIARY!**

Once it is there – you are more focused and you will keep to it.

At this point I need to digress from the main topic.

One of the basic mistakes people make while trying to get fitter, healthier and more beautiful is being too ambitious. They buy a gym membership, packs of new products, expensive equipment, start by doing a workout 3 hours every day, or change their routine and habits dramatically with a vision of “new life, new me.” Then they get tired pretty soon and end up doing nothing. It is all about finding the balance. If you want life-long changes you need to fit them into your work routine, family commitments and ...abilities. Otherwise they just won't work.

However, can you start with a half-an hour walk every day? Then turn it into a brisk march lasting for at least an hour. You will soon notice the results which will be amazing – more energy, more positive attitude, less fatigue.

Have you heard about a compound effect? No matter what you do, whether it's good for your body or harms it, it keeps accumulating.

Just one tiny extra biscuit a day grows to a massive 365 a year and then in five years you will have accumulated an excessive 109,500 calories that may have turned into fat. About 30 pounds of fat! Just by having an excessive few calories a day.

If, on the other hand, you complement your daily routine with at least half an hour walk or a workout, you can easily see positive results of burning fat deposits and preventing numerous health issues.

You can make it even more meaningful by adding extra value. For example: have you ever wanted to learn a new language? Read more books? Listen to motivational lectures?

Take your mp3 player with you and use your hour for walking and learning new things which will additionally boost your motivation and add so much value to your day.

**And it will open your desire for more.**

## DETOX

Have you ever tried applying any cosmetics on a dirty, clogged skin? Will they work? It is the same with our bodies.

To make your body absorb nutrients, including collagen properly, it is best to detox before to get rid of toxins that imbalance the body

The truth is simple – what’s inside – shows outside. You will not have a healthy glowing skin if you have problems with digestion, constipation, water retention and all the toxic build up you get from the polluted environment for example - smoking! We feed our body with sugary drinks, alcohol, smoke and eat lots of unhealthy stuff regularly which is poisoning our bodies.

You can’t grow a plant on toxins! Have you ever tried to feed your dog or cat with toxic food? They wouldn’t normally touch it! We have slowly got used to absorbing toxins since we were small children. Try smoking a pack of cigarettes at once!

The toxins are accumulated in our digestive system, blood, liver, lungs and skin.

There are different ways to get rid of them and do not be deluded that a £200/day clinic does something that you are unable to do at home regularly. To get the most out of from collagen treatment, it is necessary to get rid of the toxic waste and find the cleansing diet that suits you in order to bring back the balance to your body

There is a great selection of literature and tips that you may find, and just adopt the system which does not contradict your beliefs, does not interfere with your daily routines –and then there is a high chance you will keep those habits for a lifetime.

It does not mean you need to change your ways dramatically. But obviously, you have to be consistent and be determined to change things in small steps. If you change just one little thing every day or every week – after a year the results will be amazing....

If you keep to your old harmful habits, the side effects in a year may be equally noticeable, but in a negative perspective.

You can either find a proper cleansing week/month plan and start with a kick, or reduce your daily sugars, caffeine, preservatives, alcohol, nicotine intake regularly and every day. The choice is entirely yours.

How to find a cleansing plan? There is a great choice of cleansing programmes that everybody should find fit in with their beliefs, needs, tolerance etc.

Have you heard of “The Master Cleanser “ by Stanley Burroughs? It is also called The Lemonade diet. It’s been around for about 50 years and although some people find it hardcore, it has its enthusiasts.

There are also followers of the theory of the detoxifying effects of raw foods and juices or smoothies, which fight the fatigue, boost the immune system, enrich the body in vitamins, minerals, and anti-oxidants.

You can find fantastic products and diet plans, etc. and your cleansing programme also depends on your daily, regular diet – if you are careful enough maybe you just don’t need a very dramatic change.

You should not contradict yourself.

If you do not want to get bothered by any sort of “fast track” solutions, what you can always do is simply stop eating junk food and using toxic skincare and you won’t have to wait long for the results.

The main idea is to restore proper body functions, get rid of constipation, water retention, bloating, fatigue, reduce coffee and sugar and then we remove the causes of illness not their results. Healthy lifestyle is not about limiting yourself but about regular application of certain rules on a daily basis, and a treat from time to time is not going to do make much difference. But if you prefer a more moderate approach – the important thing from Day One is reduce sugar in your diet.

## **THE ART OF THE RIGHT CHOICES**

You can choose what you do, what you eat, and eventually what you become. You can do what you want, the key is to do things which bring you benefits, not harm.

Do you know what your no 1 enemy is?

**Sugar.**

The scientists are now unanimous, and the statistics are devastating:

100 years ago we ate 2 kilos of sugar annually per person, then 50 years later – 4 kilos annually per person, and nowadays – we consume 70 kilos of sugar every single year! Isn't it shocking? And it does not mean that you now take 10 spoons of sugar into your morning coffee and afternoon tea, but there are lots of foods that are “enhanced” with sugar and you would not even expect that it is there!

Sugar is not only white or brown crystals you lavishly put into your drinks. Look carefully at the labels of cereals, yoghurts, bread, spreads, or even meats and you will easily find it among the ingredients. It is also to be aware of artificial sweeteners which includes aspartame (NutraSweet, Equal), sucralose (Splenda), saccharin (Sweet'N Low) and others. Aspartame which is found in snacks, sweets, desserts, 'diet' food, even chewing gum and it is particularly harmful to the body causing headaches, blindness, seizure and it has also been linked to cancer.

So one small step is to find out more about your everyday food content and reduce the foods with sugar in them.

Why is it important?

A group of people who lived to be over 100 years were studied. They all had different health issues and personalities - some were smokers, some non-smokers, some had low blood pressure and some high, some had an aggressive temperament and some of them were calm. However, they all had one thing in common – a very low blood sugar level. The conclusion was that low blood sugar and relatively low insulin levels are the main factors of longevity. High consumption of sugar contributes to aging and shortening of people's lives.

Cutting down on sugar is one of the key points in correcting and optimising your nutrition to activate the collagen production in your body.

High sugar or foods with high GI consumption leads to glycolysation of DNA – it means the carbohydrates attach to DNA damaging it as a result. What follows is the breakdown of cells and accelerated ageing process.

Some measure the quality of foods by the Glycemic Index – GI.

High GI – tells you how fast the sugar content of a food is released into your bloodstream and this, very quickly, raises the insulin level in the blood. However, the good news is that you can substitute pure sugar with healthier equivalents e.g. Agave syrup has a very low GI and is very nutritious. Another product which is becoming more popular is natural fruit sugar which is much more healthy and does not trigger insulin into the system.

These are clear examples that you do not have to make dramatic changes, but the right choices. Sugar does not only harm your DNA, but also makes your supplements less effective.

If you want to benefit from the Colvita supplement – fish collagen with algae and high potency Vitamin E - you need to know that sugar 'glues' the collagen you consume, disturbs its absorption, and you just waste it. It has been proven that if you want to supplement your diet with collagen food supplements you should avoid certain foods which significantly lowers their effectiveness, and sugar is one of the most important examples.

Another rule that everybody knows but many fail to obey is drinking enough water. Do you know that if you drink less than 30ml of water per kilogram of body weight many important

biochemical processes are either slowed down or even stopped? It has been found that 30% of body energy that has been daily produced is generated from water we drink. Obviously, a good quality water. So if we do not drink enough water the efficacy of collagen we consume as a food supplement is diminished.

It is best to start your day with a glass of warm (not hot) water with lemon juice which alkalines the body instead of that favourite wake-up beverage, coffee. Coffee is acidic and over-acidity is dangerous and causes various health issues which may result in chronic diseases. Excess acid must be neutralized by alkaline to balance and strengthen the body. A balanced pH diet is, according to many specialists, the key to health and longevity. There are also other various benefits of swapping a cup of frothy coffee for a glass of lemon water first thing in the morning. It boosts the immune system, hydrates, and detoxifies which is what we are aiming to achieve. It may sound weird, and even unthinkable, for many people to be deprived of their morning cup of coffee but they will be really surprised that after a few days they will feel much better in the morning and the craving for coffee will gradually disappear. What is really important is the long term health benefit and not the short term pleasure of that cup of coffee.

## **How about fats? Healthy? Unhealthy?**

We have to consume a proper amount of fat daily as it is necessary for many processes. However, saturated fats should amount to about 10 grams maximum e.g. a 100 g chicken breast has 10g of fats which is all our body needs. The excess leads to a change in the blood structure. This clear example answers the question of how much meat we need to eat every day and the simple answer is – not much.... There are other fats that play a vital role in our system. It is very important to keep the balance between fatty Omega acids. And it has been found that too much of certain types of these acids (Omega 6) speeds up ageing by provoking inflammation processes in the body and ruins collagen structure. Which means that they facilitate ageing!

Omega 6 – for example, maize oil, sunflower oil, while Omega 3 – brings balance to these processes (inflammation and collagen disintegration), so make sure that you balance your daily fat consumption properly.

## **What oil to choose to bring positive changes and regenerate the collagen structure?**

Olive oil, pumpkin oil, coconut oil, fish oil and not meat should be given priority. What do we actually eat – just look at your plate. Many people do not think about what they eat. They do not look at the labels and the amount of chemicals and often end up eating rubbish

food. They do not realise that their overweight bodies are actually starving. They are clogged with all the junk and literally crying out for real food.

## **The inner life**

We have about 2,5 kilos (5 pounds) of 'the inner world' bacteria living in our intestines. Bacteria which we need to feed with the right food to keep a good balance – if there are too many of them or too few, we fall ill. So we need a good diet which does not cause putrefaction in the intestines which will damage the walls and result in toxins getting into our bloodstream and poisoning the whole body.

Firstly, we need to understand why we eat. We eat not just for leisure, to entertain or celebrate but we eat to survive, to keep our bodies in a good condition for everyday activities.

There is one elementary principle – we pay for all we do. And we also pay for what we eat. We can say – you live only once, but it may depend on you in what condition and for how long.

## **Still smoking?**

In addition, if you are looking for an elixir of youth and you still smoke – what you should do first is to stop smoking.... Do you know that smoking breaks collagen fibres, deprives skin of proper hydration and nutrition?

And even though there are people that claim that their grandfather smoked all his life and lived to the old age – you can just simply look at the face of a smoker. They probably have more wrinkles than anybody else and their skin is thin, dry, and tired.

## **COLLAGEN – THE KEY TO A YOUTHFUL LOOK**

If you want to rejuvenate and slow down the degenerative processes in your tissues it literally means strengthening your body collagen.

What is the largest human organ? This question is a tough one and often draws the wrong answer. It is the skin, which covers, protects and adorns us. It also serves our organism in excretion, emission and respiration - 70% of skin protein is also collagen. Collagen is found in nearly all body organs, most abundantly, besides the skin, in cartilage, veins, tendons, ligaments, bones and takes part in important living processes.

Biological age is just the condition of protein that constitutes our body.

Collagen is constantly exchanging in our body – it's used for living processes and new is being produced. To make sure the body has all the necessary nutrients to produce collagen we need to consume a proper amount of amino acids every day. .

On average we are able to absorb only around 38 - 48% of proteins from food and also the human body does not produce ALL the amino acids necessary for its proper function and that's why we have to provide them it with food and supplements.

Ageing is irreversibly connected with the loss of collagen in the body. This most abundant body protein is what gives our skin resilience, a youthful look, gives shapes to our internal body organs and the strength to our bones. It also reduces friction between the joints. We are literally immersed in collagen. It constitutes a lot of our connective tissue and its quality determines how fast we regenerate from injuries and illnesses.

Unfortunately, as you already know, its production in the body dwindles with time and we become wrinkled and generally weaker.

So, in simple words - to reverse the clock you need to rebuild your collagen and slow down the processes of its degeneration which means not only on your face to remove the wrinkles, but inside as well. Dry and sagging skin is the reflection of the processes happening inside your body. Removing the wrinkles without stimulating internal regeneration processes is like ironing the sheet when the mattress has become perished.

Once it became obvious that there is a clear relationship between the quality and quantity of collagen in the body and the appearance of certain signs of ageing like wrinkling, muscle stiffness, loss of joints flexibility, hair thinning, poor vision etc, the beauty industry turned to supplementing collagen in the body in different ways. Since then it has been added to creams, injected into the skin to make it look firmer and also consumed as a food supplement.

## **WHICH COLLAGEN IS THE BEST CHOICE?**

It is, therefore, really important to know where collagen comes from: there are three or even four main sources of collagen:- bovine (cows), porcine (pigs) and marine fish collagen, but

some also claim to use plant collagen. Collagen by Colway is another modern type of protein used as a skin care product and food supplement.

**Bovine** collagen comes from the tendons and bones or it can also be taken from the skin, lungs, intestinal walls, and the walls of blood vessels of the cow.

It's then processed, sterilized, purified and turned into a liquid form for cosmetic use.

Although it is banned in Europe, it is still used in America. This form of collagen is primarily used as a skin filler and scar remover, but also as an ingredient of anti-ageing creams. But this biologically inactive protein, although effective as a wrinkle filler, was not providing expected results as a cream ingredient. It did not improve the skin as advertising claimed. No surprise – the dead, chemically processed protein had no chance to interact with the tissue to give a genuine anti-ageing effect. The protein is too big to penetrate the skin in topical treatments and work in the layers where the skin is reproduced.

**Porcine** collagen, rendered from the skin tissue of pigs, is generally used for collagen replacement therapy to smooth wrinkles. Replacement therapy is a treatment in which highly purified collagen is injected into the skin to replenish the skin's natural collagen by filling the lines and wrinkles, improving the look of the sagging skin.

The effects of injections usually last for only six months to a year (The risks associated with bovine collagen use are allergic reactions and possible connective tissue disorders such as arthritis and lupus.)

The biggest cosmetic collagen manufacturers (injectables) have their own cow and pig herds which are kept in sterile conditions and fed artificial food in closed sheds. They never see the daylight, they do not move. They are given hormone injections and their blood is tested regularly to see that they have no unwanted bacteria. Some companies claim that they only use calves aged six months or younger bred in Australia.

**Marine** collagen may be derived from cold sea fish . Sea collagen is made from the skin and fin. It is produced by enzymatic hydrolysis of fish skin. Thus it is easily absorbed by our digestive system. Some marine collagen is made of fish cartilage. It is actually hydrolysed collagen type 2.

Unlike other types of collagen, marine collagen isn't injected, but is instead taken as a supplement or as an ingredient of a topical cream.

Another term widely used is “**plant** collagen”. Is there anything like plant collagen? Collagen does not come from plants, it comes from animals only. Some companies use plant substitutes which are processed hydrolysed wheat or soyabean proteins. Collagen is a protein produced exclusively by vertebrates – it refers to the main structural protein of the various connective tissues in animals at the basic level composed of amino acids plaited into characteristic chains. Plant substitutes might be, in some way, similar but it will never have the same properties and results. So, generally speaking, plant collagen does not exist.

## **A word about hydrolysed collagen – what is it and why has it become tremendously popular?**

Do you know what the relationship is between a chewy gummy bear and a cheap collagen cream? They contain the same ingredient – gelatine. Which, in other words, is a hydrolysed collagen.

The majority of collagen that you can purchase is a hydrolysed collagen – the component of the many skin care and supplements and in simpler words – gelatine. Its production involves thermal or enzymatic destruction of peptide bonds between amino acids in collagen protein. The hydrolysate is a mixture of protein fragments of various weights, so technically speaking it means a disintegrated protein, which is made more “usable”, more absorbable. The raw material, which is usually used to produce hydrolysed collagen is bones, skins, ligaments, etc. The high demand of raw material for gelatine production has resulted in collagen hydrolysate being used because it is the cheapest type of the collagen derivatives. Also the processing to obtain gelatine is fairly inexpensive and that all dictates its prices. It is widely used in the food industry assuring an appropriate texture of products or as a thickener. It is also widely used in a cosmetic industry as a component of many beauty products and supplements.

There are companies that make a good or poor quality hydrolyzed collagen, but it is always a PROCESSED product. Some collagens are more bioavailable than others which means what is the actual quantity – fraction of a product absorbed by the body. Is it highly absorbable and our body only uses some of the product for building the tissues.

And also sometimes you can read on the packaging that it is a mysterious collagen type 1, 2 or 3. What is that?

This refers to the source material has been used to produce it.

Collagen type 1 – most abundant, in tendons

Collagen type 2 – in cartilage

Collagen type 3 - the second most abundant collagen in human tissues and occurs particularly in tissues exhibiting elastic properties, such as skin, blood vessels and various internal organs.

## **Collagen by Colway**

It is a totally new generation of collagen made possible by advanced biotechnology, although in its nature it is actually a very simple product.

It is a raw pure protein which packed in a jar as a skin care potion looks exactly the same as in the living body – chains of amino acids still active, living, and preserved only with 2 organic acids in a gel form to make it usable for customers as a cosmetic for a few months.

It is called collagen, but we do not mean collagen fibres as we have in our skin, which make it strong and resilient. To help you to paint a picture in your mind of what it really is – imagine a helical structure consisting of three amino acid chains coiled around each other to form a spiral and stabilized by interchain bonds. It is a basic structural unit of all forms of collagen. And it is really amazing that there is a way to preserve this living structure as a water solution. This is achieved by adding organic preservatives which keep it together, and it can then be used as a very effective anti-ageing product.

## **How does it work and what makes it so effective?**

Collagen by Colway – is **not** a cosmetic, not a supplement, not medicine. This is a new generation preparation. It provides pure protein necessary for our system. It regenerates the skin by activating cells to produce more collagen. Applied to the skin, it does not adhere miraculously to our collagen fibrils. It enriches the extracellular matrix of all the layers of the skin with amino acids, which causes a facilitating fibroblast activity increasing the body's production of its own collagen.

The amino acid chains stay coiled together as long as the temperature in which they are kept does not exceed 26 degrees Celsius. Then they break down into individual peptides and literally die as protein. This happens if it is improperly stored in a jar in a warm place and a precious potion is lost as an active rejuvenating gel. But when you put Natural Collagen on the skin, which is obviously warmer than 26 degrees, it breaks down into individual peptides. The bonds keeping the peptide chains are destroyed by the temperature but then it is a good thing – tiny individual amino acids can penetrate the skin. They cross the border of the epidermis which is normally very difficult to achieve for any cosmetic. Not all creams are able to get through the epidermis and this the difference between a good anti-aging cream from an ineffective one. It is not enough just to moisturise and nourish the skin's surface. To get a truly regenerating effect, a cream has to work inside the skin by stimulating the cells which are responsible for producing collagen. And this is what Natural Collagen does – it works in the layer where our body collagen is formed and it stimulates fibroblasts – collagen formative cells, so they become more active producing more collagen. So, in other words, Natural Collagen acts as a booster, as a nutrient which has the power to activate the skin so it forgets how old it really is.

Protein used to produce Natural Collagen is extracted from fish skins and the process is fairly easy. It does not require complicated procedures and its chemical structure is very similar to a

simple human collagen. The only issue is to preserve the delicate extracted protein to work as a skin care product.

What is really important is that it is a natural protein and the jar contains no chemicals at all, it has only organic ingredients, (only the ingredients that are in our body naturally anyway), and it's not processed at all. It looks exactly the same as in the body of a living organism. Natural Collagen contains precious amino acids which our skin needs and uses as building blocks. As a result, the skin is regenerated and the loss of collagen is significantly slowed down. It becomes stronger, firmer and keeps the moisture better. It's a natural process which is happening within the body, and this is why when you stop using Natural Collagen the results are not going to disappear quickly. Obviously, though, the more regularly and longer you use it, the better results you will have.

The most important thing is that we don't introduce anything artificial and the body is left to absorb the whole process itself by being properly nourished by Natural Collagen.

So, how do you feel now, knowing that just by everyday regular application of a very simple product - Natural Collagen - your skin will look younger for longer and the ageing processes will be slowed down? Think how you can look in 5, 10, 20 years?

And it all happens in the skin.

How about the rest of our body which also need nutrients for its wellbeing?

Loss of collagen can be easily noticed on the skin, where this protein is more abundant. It becomes wrinkly, saggy, and dry...

All these are visible signs of ageing, which not only affects the skin but also all other organs and their functions. We cannot always see the problems but we can 'feel it in our bones'. For example: a bad knee, poorer eyesight, loss of energy are clear examples of collagen deterioration.

Chains of human collagen are built of 20 amino acids. 11 are produced by the organism, but 9 of the 20 standard amino acids must be taken from food. What we have to do on a regular daily basis, is to make sure we supply these building blocks with the food we eat. So, no junk food, but the best quality nutritious meals which provide protein, proper fats, vitamins and minerals, good carbohydrates, and not necessarily sugar, sweeteners, artificial flavouring, all the ingredients that make our food look and smell attractive but are not valuable as nutrients.

**You become what you eat!**

Obviously a proper supplementation does help as well.

Along with Natural Collagen which does 'magic' to your skin, there is a capsule form of this collagen - Colvita® which is truly beneficial for our system, as it contains precious amino acids and vitamins supporting collagen formation in the body. It is not a hydrolysed collagen which is so popular in health shops. Its secret lies in the way in which it is produced - it is lyophilized (freeze dried), not hydrolysed.

*Lyophilization* means freezing pure collagen up to minus 40 degrees Celsius in a vacuum and removing all water (drying). It guarantees the highest purity and lightness of the product. This process creates amino acids (ingredients of collagen) that are easily absorbed by the system and their synthesis is supported by vitamin E, minerals and vitamin C. Our body uses as much as 99% of the protein in the capsule, so its bioavailability is actually really high. It means the body fully utilizes all these amino acids to build new collagen.

But there is one more really important element which really makes a difference – Vitamin C.

## VITAMIN C - COLLAGEN'S BEST FRIEND

It is one of the most important ingredients of our diet, because humans, unlike animals, do not produce this vitamin in the body, It has to be supplied by food and, because it is responsible for a few fundamental body functions, we really have to make sure our daily diet is rich in it.

It contributes to collagen formation in the body for normal function of the skin, blood vessels, cartilage and also immune and nervous system and metabolism.

If you feel tired and without the energy, your body might need a higher supply of Vitamin C, so think about it before you drink a fifth cup of coffee.

Sometimes during the day we feel like a deflated balloon, a bit overwhelmed with the pressure of work and tensions which have built up during the day. When this happens it is much better to lie down and relax for 15 minutes with eyes closed, rather than stimulating your body artificially by drinking tea, coffee or other energy boosters. Just by taking a Power Nap during the day, you will quickly feel so much better mentally and physically.

It is also, along with Vitamin E, a really powerful antioxidant which protects our cells from free radicals which damage our cells and trigger the ageing processes.

### **Which Vitamin C is the best?**

Our body does not fully utilize the synthetic form of Vitamin C. It has been proved that naturally derived Vitamin C from food, or in any naturally derived form, not synthetic, is by as much as 1200% more bioavailable than a synthetic Vitamin C and it should be a preferred form of supplementation. Synthetic ascorbic acid is usually synthesized from corn dextrose. You can find it in the majority of the products distributed as Vitamin C. It is poorly absorbed by the body, and, in addition, taking it regularly or in high doses can cause adverse health effects. Some producers or distributors are falsely advertising their products as 'natural' or 'with acerola' while for example in one 1000mg capsule or tablet, only about 50mg is a natural ingredient, the rest is synthetic ascorbic acid!

So be responsible for your own health, do not rely on advertising and study the labels! The most valuable sources of natural Vitamin C are acerola, lemons, limes, grapefruits, blackcurrants, kiwi, tomatoes, broccoli, cabbage and potatoes.

Some claim that a balanced variable diet is actually all we need to stay healthy. Have you heard of Linus Pauling?

Linus Pauling was an American 20<sup>th</sup> century chemist and biochemist ranked among the most important and influential scientist of the 20<sup>th</sup> century, an unquestionably respected figure, and one of the founders of molecular biology. He was awarded the Nobel Prize twice. Pauling was a great promoter of dietary supplements and multivitamin therapy.

In his book "**How to live longer and feel better**", he uncovered a straightforward plan for vigorous and long life. He noticed that the major health problems of the 20<sup>th</sup> century such as heart disease, cancer, diabetes and other degenerative diseases are a result of nutrients deficiencies. He said that they will not be cured by pharmaceutical drugs with harmful side effects but rather with appropriate nutrient supplementation, especially Vitamin C. His ideas, were not popular in those days, and were quite a novelty. He also cited quite a few other studies regarding this subject.

He went a bit further and explained why simply eating well does not ensure optimal nutrition, which vitamins are the crucial ones, and how they, especially Vitamin C, boost the immune system, activate natural protective mechanisms of the body, and help to keep away killers such as cardiovascular diseases and cancer. (*How to Live longer and Feel Better*, p.10)

What is more, Pauling demystified a common concept that consuming a recommended daily allowance of vitamins and minerals is enough for good health. He claimed that RDA simply allowed us to avoid disease, but only by far exceeding the RDA of some vitamins, especially C, E, B, and A, can we enjoy a much stronger immune system which is capable of self-healing. He cited medical studies which showed that people who took much more than the recommended daily allowance of Vitamin C were less prone to diseases and lived longer.

*"This difference means that the length of the period of good health and of life was ten years greater for the person with the higher intake than for those with the lower intake of vitamin C. The dividing line was 50 mg per day, approximately equal to the recommended dietary allowance (How to Live Longer and Feel Better, p. 107)*

Here are some simple steps that will help you to regenerate your body from the inside out and get the most of your every day collagen skin care routine and supplementation.

## HOW MUCH COLLAGEN SUPPLEMENT DO WE NEED?

### THE PROGRAMMES

## **BASIC PROGRAMME**

Colvita – 2 capsules taken once daily  
Vitamin C – 1 capsule taken once daily  
Collagen Platinum applied topically twice daily

## **ADVANCED PROGRAMME**

Colvita – 2 capsules taken once daily  
Vitamin C – 1 capsule taken once daily  
Collagen Platinum for Face,  
Collagen Silver for Body,  
Collagen Graphite for Hair and Nails applied topically twice daily

It can be supplemented with:

Pure Gold Masks with Native Collagen – initially a course of 6 treatments done over two weeks, then one Mask once a week or 10 days

## **ULTIMATE PROGRAMME**

Colvita – 2 capsules taken once daily  
Vitamin C – 1 capsule taken once daily  
Collagen Platinum for Face, Natural Collagen Silver for Body,  
Collagen Graphite for Hair and Nails applied topically twice daily  
Collagen products for everyday skin care regime – cleanser, toner, scrub, night cream and day cream, eye elixir

This programme gives ultimate results both in maintaining overall wellbeing of the body and condition of the skin.

Obviously, they are not a substitute for a healthy and balanced diet and your daily diet makes a huge difference. Consuming certain foods can enhance the results of collagen supplementation or slow them down.

**The choice is yours!**

### **To sum up.**

When we are 20 collagen production in our body is optimal. With age, the balance is disturbed and it leads to the decrease of collagen in body – skin sagging, loss of firmness, eyesight is getting poorer, tendons and cartilage are weakened. Proper food, healthy lifestyle, and supplementation are key elements in a good body care.