



## References

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# COLLADEEN® *Original*

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# Fresh thinking on tackling fluid retention COLLADEEN® *Original*



# Foreword

It will be comforting for many women to know that a dietary supplement may offer relief from heavy, aching legs caused by fluid retention of no known cause. Until recently there has been no guidance available on natural products that might be helpful for this common condition. Now, building on studies published in Germany and Italy, our own studies at The University of Reading have shown a substantial benefit in leg health in women on a daily supplementation of anthocyanidins. Anthocyanidins are a sub-group of the flavonoid family of plant compounds that are highly anti-inflammatory - a property that helps to reduce fluid retention by strengthening minor blood vessels to reduce their leakiness. Flavonoids are found in abundance in fruit and vegetables - so they are a normal part of the diet. They are also prime active components of many herbal remedies, being responsible for an estimated 50% of all their medicinal effects. Although anthocyanidins are the pigments found in dark red fruits, intake is generally too low or too seasonal to be effective. This is where the daily supplement Colladeen® Original is invaluable.

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# Introduction

Symptoms of fluid retention plague up to 70% of women<sup>(1)</sup>. That's just over 17 million women in the UK. Although far fewer men present with fluid retention at the doctor's surgery, it is not known whether this reflects a real difference between the sexes or just that men can hide symptoms more easily under clothing!<sup>(2)</sup>

## **Diverse symptoms makes advice difficult to find**

Fluid retention is experienced by a vast number of women from those in their teens to those of post-menopausal age. For some the symptoms are with them all the time, whilst other women notice a worsening just before their period or after standing for a long time or after long-haul flights. Because the symptoms can be so diverse, from leg swelling and breast tenderness to puffy eyes and abdominal bloating, the condition can leave health practitioners at a loss to know what advice to offer<sup>(3)</sup>.

Most women do not feel that they should bother their GP about symptoms of fluid retention because of the relatively mild nature of the problem. Those that do seek advice may find the treatment options rather limited. Diuretics (water tablets) are sometimes prescribed for medical causes of fluid retention, although unfortunately, these preparations have side effects and for the majority of sufferers with non-medical causes of fluid retention they are not suitable for long-term use<sup>(4)</sup>. This means most women with non-medical fluid retention are left to endure this annoying problem.



# So you **think** you may have fluid retention?

Initially, you'll need to work out what form of fluid retention you may have. This may sound strange but there are 3 main forms of fluid retention and finding out which form you have is relatively straightforward. Simply read the following examples and decide which one best describes your circumstances. You may find yourself identifying with more than one type – this doesn't matter. If you are at all unsure, a visit to your GP is a good idea to rule out more serious (medical) causes of fluid retention. The rest of this booklet has been designed to help you understand more about fluid retention and to explain about a safe, natural approach to the problem.

## Different types of fluid retention

### (i) Cyclical fluid retention\*

You're certainly not alone if you notice that your symptoms (such as breast tenderness, swollen fingers, weight gain and abdominal bloating) flare up or appear around the time of the monthly period - an estimated 10 million women in the UK complain of this type of fluid retention and there is plenty you can do to help yourself, without even needing to trouble your doctor.

Some physicians refer to this kind of fluid retention as 'cyclical' whilst women's magazines and many books recognise these symptoms as part of the form of Pre-menstrual Syndrome (PMS).

Water tablets (diuretics) are rarely prescribed by doctors for this form of fluid retention since they are unsuitable and are associated with long-term side effects<sup>9</sup>. With so many women suffering with cyclical fluid retention and so little suitable medical treatment, a large majority of sufferers are left to struggle with the condition by themselves. This booklet will explain how a new, natural product now gives these women the chance to tackle fluid retention safely.

### (ii) General fluid retention\*

Although the actual symptoms of 'general fluid retention' vary little from cyclical fluid retention (e.g. breast tenderness, swollen fingers, weight gain and abdominal bloating) what distinguishes this form of fluid retention is that women of menopausal age also suffer. General fluid retention can also affect women who are still having periods – it's just that the symptoms are with sufferers all the time, irrespective of the time of month.

Doctors refer to this kind of fluid retention as 'idiopathic', which means that there is no obvious cause for the symptoms. Water tablets (diuretics) are rarely prescribed by doctors for this form of fluid retention since they are unsuitable and are associated with long-term side effects<sup>9</sup>. To learn about a safe, new, natural plant supplement that has already helped hundreds of women who complain of general fluid retention, keep reading!

### (iii) Medical fluid retention

If your fluid retention symptoms are related to liver, kidney or heart problems, your doctor will have already explained to you what treatments are available. To learn about some simple lifestyle changes that may help you, turn to pages 8 & 9.

*\* Although most cases of fluid retention are not associated with medical conditions, a visit to the GP is always recommended when symptoms first appear or flare up so that more serious problems can be ruled out.*

# Signs and symptoms of fluid retention

The more common signs associated with fluid retention are described in the paragraphs below<sup>®</sup>. You may find that you can only associate with one of these, or you might come to realise that you can relate to all of these situations to some extent or other.

Remember that friends and family may not be aware that you are suffering, since the symptoms can be too subtle for an outsider to notice - this doesn't mean that your suffering should be regarded less seriously, since your quality of life can take a serious nose-dive during these times.

## BREAST TENDERNESS AND SWELLING\*

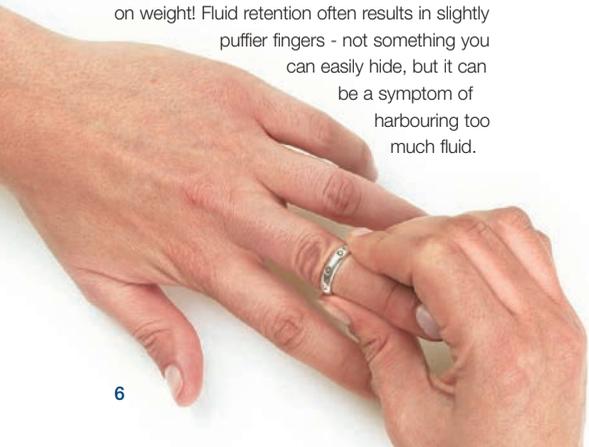
You might encounter bust size changes at certain times - some women notice differences in the pre-menstrual part of their cycles. Feeling like you're carrying extra weight at these times is uncomfortable and for some, means going up a whole bra size (or two).

## SWOLLEN ANKLES\*

Your own ankles may resemble those of a traveller after an aeroplane journey, when, in fact, you've not set foot inside an aeroplane. Certainly flying and standing for long periods can make things worse. You might notice that the ankles are less 'defined', the ankle bones appear sunken and less obvious.

## DIFFICULTY PUTTING ON/TAKING OFF RINGS\*

Having difficulty pulling off or putting on rings doesn't necessarily mean that you're putting on weight! Fluid retention often results in slightly puffer fingers - not something you can easily hide, but it can be a symptom of harbouring too much fluid.



## PUFFY SKIN AROUND THE KNEES\*

Fluid retention that occurs around the knees can limit your choice of clothes and affect your self-esteem, especially in the warmer months. You may also feel that your legs are 'heavy', 'tight' or just generally cumbersome, particularly when walking or exercising.

## PUFFINESS AROUND THE EYES\*

You might think you look as if you've been partying too hard - when you haven't! The delicate area surrounding the eye is prone to accumulating fluid; you might describe this unwanted effect as making you look 'unrefreshed' and tired.

## ABDOMINAL BLOATING\*

You may notice changes in the size of your tummy (abdomen), which can lead to significant discomfort and embarrassment. Many women notice changes in the size of their abdomen in the pre-menstrual part of their cycle.

*\* Although most cases of fluid retention are not associated with medical conditions, a visit to the GP is always recommended when symptoms first appear or flare up so that more serious problems can be ruled out.*

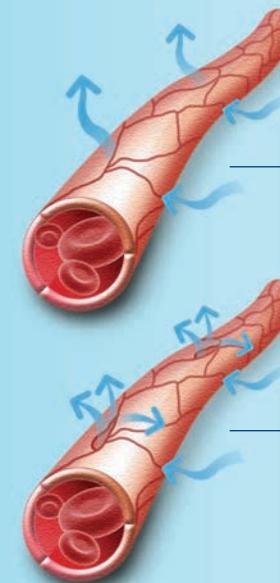
# What causes non-medical fluid retention?

Most symptoms of swelling or puffiness are a result of too much fluid escaping from the small, delicate blood vessels in the body and remaining in tissues for too long<sup>®</sup>. Our bodies contain billions of small blood vessels, called capillaries, which run through every tissue inside of us. If the network of capillaries was laid out in a straight line, it would stretch for thousands of miles!

Capillaries are scaled down versions of the larger, more robust part of the circulatory system that includes arteries and veins. Capillaries are hundreds of times thinner and more fragile than a strand of human hair, whilst arteries and veins are hundreds of times bigger – easily visible where they come close to the skin surface. Using the analogy of a road network, an artery could be likened to a motorway, whilst a capillary would represent a footpath!

Capillaries nourish all the body's tissues with oxygen and nutrients and allow waste material and fluid to be taken away from various parts of the body. When capillaries become 'leaky' or over-porous they can allow too much fluid to seep into the surrounding tissue – and remain trapped there, causing fluid retention<sup>®</sup>.

## CAPILLARIES – Thinner than a human hair



'If the network of capillaries was laid out in a straight line, it would stretch for thousands of miles!'

### Healthy capillary

Capillaries are designed to allow fluids to move both ways across the vessel walls. In this way the surrounding tissues are supplied with nourishment, and waste products are removed.

### 'Leaky' capillary

Sometimes capillaries become too 'leaky' and so more fluid escapes than is reabsorbed. The result is that fluid accumulates in the surrounding tissues.

# Tackling fluid retention

**Many factors influence the health of the capillary network - much of which we can control - such as the type of food we eat, the habits we adopt and the exercise we take. Below are some lifestyle pointers that will enhance the health of the small blood vessel network and reduce the risk of fluid retention**

## Salt restriction

Most of us eat more salt (sodium) than we need. In the UK, the average adult consumes about 9 grams a day (about 2 level teaspoons a day). This is in excess of the 6 grams that is recommended by doctors. Excess salt intakes can lead to fluid retention because the salt tends to drag fluid into the cells. Further down the line, if intakes continue to be high, there is also the possibility of more serious health concerns such as high blood pressure, stroke, heart and kidney disease.

The salt we add to food when cooking or at the table only accounts for 20% of our total salt intake. Another 20% comes from naturally occurring salt in unprocessed foods, whilst the majority (at least 60%) comes from manufactured foods; which contain salt to improve their taste. So cutting down on the salt you use at the table will only achieve so much. To really cut down on salt you will need to reduce the amount of prepared foods and ready meals you eat.

## Reducing caffeine

Although tea, coffee and colas don't necessarily have to be excluded altogether, excessive intakes (more than 5 cups a day) can upset the fluid balance in the body, by placing stress on the kidneys. These drinks are referred to as having 'diuretic' effects on the body - they encourage a loss of vital fluid and essential minerals if drunk to excess. The long term effects of drinking these popular beverages aren't good for fluid retention sufferers - they can actually lead to more severe forms of fluid retention.

## Quit smoking

Smoking is known to cause so many health problems, and damaging the delicate capillaries is just one of them. Fluid retention is therefore just another good reason for giving up!

## Water

Whilst on the subject of liquids - don't be fooled into thinking that the more water you drink, the more fluid you will hang on to - this just isn't the case. A dehydrated body will hang on to fluid as a preservation exercise - so aim to drink a medium size glass of water every waking hour of the day; somewhere between 1.5 - 2 litres a day.

## Exercise

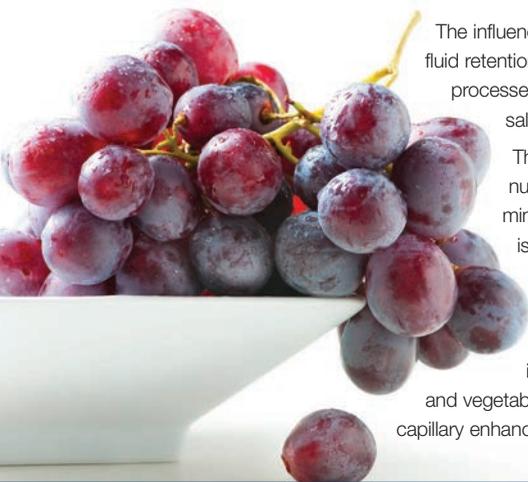
Standing, lying or sitting still for long periods of time doesn't help fluid retention. That's because the small blood vessel network in the body relies on muscle contraction to move its fluid around the body. Encouraging this movement of fluid leads to better elimination of waste material and also a better delivery system for nutrients and oxygen - so get into the habit of being less sedentary.

You don't have to invest in expensive equipment or join a gym to make exercise a part of your life. There are plenty of different forms of activity that can be easily built into your routine. Walking is gentle and easy to fit into your lifestyle, for example. It stimulates the blood vessels, heart, lungs, muscles and, of course, the mind. Aim for 10 or 15 minutes a day to start with and build up to at least 30 minutes. Swing your arms and walk fast enough to work up a slight sweat; you should be slightly out of breath.

Remember to wear comfortable, sturdy shoes.



## The importance of diet



The influence of diet on the health of your capillaries and on fluid retention cannot be overstated. A diet consisting mainly of processed 'junk foods', which are low in vitamins but high in salt, will definitely not help.

The health of the capillaries relies on many essential nutrients found in a good diet including protein, vitamins, minerals, and essential fatty acids. Vitamin C, in particular, is known to be important for capillary health - so a diet high in fresh fruit and vegetables is essential.

Recent research has shown that there is another distinct group of nutrients, which play a vital role in the health of capillaries. But even diets high in fruit and vegetables may not provide optimum levels of these new, capillary enhancing nutrients.

### Anthocyanidins – the missing nutrients

Some of the most exciting advances in nutrition science are the discoveries of nutrients present in our diets, whose importance to health had previously been overlooked or underestimated. One group of nutrients, found in fruit and vegetables, called flavonoids, have for a long time been recognised as important. But more recently, a division of the flavonoid family called anthocyanidins have been identified as being particularly active in supporting and repairing collagen-rich structures in the body. Collagen is manufactured in the body and has many roles, including being a structural part of capillaries.

In fact, there are many health problems that can result from compromised or weakened collagen, including worn joints, easy bruising and 'leaky' or damaged capillary walls. So finding a nutrient that helps build and restore collagen raises the prospect of a safe natural approach to a number of conditions, including fluid retention caused by 'leaky' blood vessels. Researchers have now established that diets low in anthocyanidins and

related compounds, called OPCs, are likely to result in damaged and leaky capillaries<sup>(8-11)</sup>.

So to reverse these problems, anthocyanidins need to be added to the diet in safe but sensible supplies. In plants, anthocyanidins are responsible for the pigments that give fruit and berries their fabulous, rich colours. So dark skinned fruit such as black grapes, cherries and blackberries can provide useful levels of anthocyanidins. The trouble is, we just don't eat enough of these foods to have a significant effect.

If you already think you have a problem with leaky capillaries, then a concentrated supplement could be ideal to provide a convenient, reliable intake of these precious anthocyanidins. One such supplement derived from natural food sources, is Colladeen® Original, which contains one of the highest levels of anthocyanidins available. In fact, two tablets of Colladeen® Original provide an impressive level of 320mg of anthocyanidins, the equivalent of 200 black grapes a day.

## Anthocyanidins work!

### The evidence stacks up

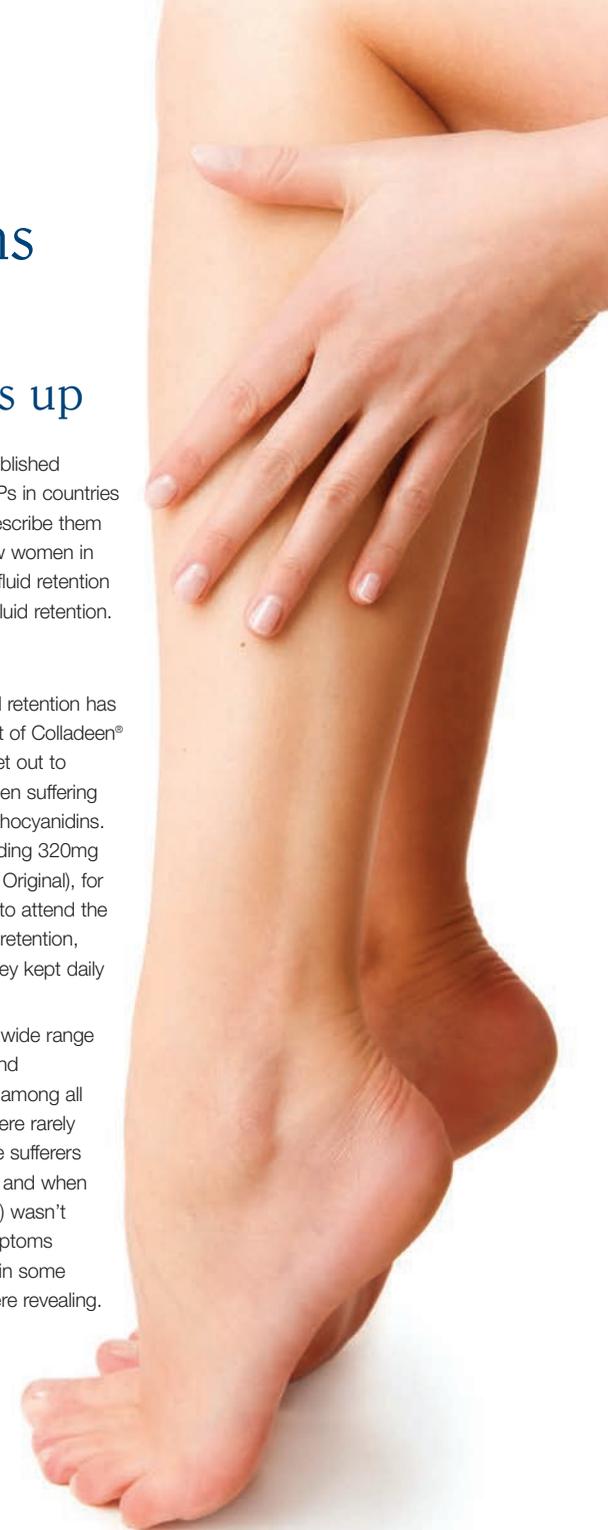
Anthocyanidins and OPCs are already well established supplements to the diet in mainland Europe. GPs in countries such as Germany, France and Italy regularly prescribe them for those with non-medical fluid retention<sup>(9)</sup>. Now women in the UK who suffer with non-medical causes of fluid retention can start to benefit from this new approach to fluid retention.

### Ground-breaking study

A UK scientific study on anthocyanidins for fluid retention has excited researchers and led to the development of Colladeen® Original<sup>(12)</sup>. Researchers at Reading University set out to investigate the effects of giving a group of women suffering from fluid retention a combination of natural anthocyanidins. The volunteers were supplied with tablets providing 320mg of natural anthocyanidins each day (Colladeen® Original), for 16 weeks (4 months). The women were asked to attend the university clinic for regular assessments of fluid retention, including leg circumference measures, whilst they kept daily records of their symptoms.

The women assessed in this study displayed a wide range of symptoms and varying degrees of distress and discomfort. However, a common characteristic among all sufferers, was the fact that friends and family were rarely aware that the sufferer had a problem - only the sufferers themselves knew what was 'normal' physically, and when the area in question (i.e. legs, bust or abdomen) wasn't quite right. Some volunteers said that their symptoms made them feel less confident, depressed and in some cases, prevented them wearing clothes that were revealing.

*See over for results.*



# Impressive results

What the researchers discovered was overwhelming. An impressive and significant percentage of the women experienced a gradual relief of fluid retention during the 16 week course on anthocyanidins, whilst those on the placebo (dummy tablet) saw very little change in their symptoms. Most women saw positive changes whilst using Colladeen® Original.

These changes became noticeable after the first 8 weeks of taking the supplement and continued to improve thereafter.

There were dramatic reductions in generalised fluid retention symptoms (e.g. weight gain, breast tenderness and abdominal bloating) as well as more specific leg symptoms associated with fluid retention (e.g. swelling, heaviness, lack of agility and pain) among a significant number of women taking the anthocyanidins (Colladeen® Original) compared to the dummy tablet.

This pioneering women's study has now led to further, larger-scale investigations by researchers looking at similar groups of sufferers - another positive step forward for women's health.



# Questions & Answers

## 1. I'm over 7lbs heavier than I should be. Could this be fluid retention?

Sorry - but no, it's probably fat! Fluid retention adds (at most) 2.2lbs (1kg) to your weight, even though the discomfort it causes feels much greater than this. This is often because the fluid is being held in tissues that are not designed to carry much 'weight', such as the ankles.

## 2. I've been buying herbal diuretics to correct my fluid retention problem. Is this the wrong thing to do?

Don't worry - it's unlikely that these products will have caused any harm. However, they are not helping the underlying causes of fluid retention, as they simply force your body to excrete additional fluid. Remember, fluid retention is caused by a relatively small amount of fluid getting stuck in the wrong place! Herbal diuretics however, are not specific and cause fluid to be lost from the whole body.

## 3. Why me? I suffer from fluid retention but I have a good diet and I keep active.

It seems that some people are just more prone to suffer than others. It also might be the case that your good diet does not contain sufficient anthocyanidins to make a difference to your symptoms. Our early ancestors had the right idea - they ate far more berries and their seeds, both rich sources of anthocyanidins.

## 4. My tummy is often bloated to the extent that my trousers won't do up. Is this fluid retention?

It may or may not be. If it happens regularly around the time of your period then it could be cyclical fluid retention. However, if it happens often, and symptoms come on rapidly, then it's probably due to wind being produced in your large intestine. Generalised and cyclical fluid retention will generally occur in at least 2 places in the body at any one time. This may help you decide if your tummy bloating is due to fluid retention or just wind!

## 5. However hard I diet, I can't lose any weight from my thighs. Could this be fluid retention?

You'd know if fluid retention was the problem because the normally thin, bony parts of your legs, namely your knees and ankles, would probably also be puffy, particularly after standing up for long periods.

## 6. Will drinking water make the fluid retention worse?

Certainly not. Only in serious disease states can excessive water consumption lead to increased fluid retention.

## 7. My legs feel tired and heavy all the time. Will Colladeen® Original help?

Tired, heavy legs can be a sign of general fluid retention (see page 6). An 8 week course of Colladeen® Original would be highly recommended.

# Questions & Answers

## 8. Can I use Colladeen® supplements alongside medicines from the GP?

There are no known interactions between the natural food ingredients in Colladeen® and prescribed medicines.

## 9. Can I take Colladeen® Original with the contraceptive pill or HRT?

Yes - these can be safely taken alongside each other. The natural ingredients in Colladeen® Original are not known to interact with the hormones used in the contraceptive pill and HRT.

## 10. Are there any side effects of taking Colladeen® Original?

No, Colladeen® Original provides you with naturally sourced nutrients that may actually offer other positive health benefits.

Anthocyanidins and OPCs are popular on the continent as 'cosmeceuticals'. This means they are sold to improve complexion on the basis that they strengthen and repair collagen. Collagen is the material that gives skin its suppleness and firmness.

## 11. Is it safe to take Colladeen® Original with vitamins and minerals?

Yes, it is perfectly safe to use Colladeen® Original with multi-nutrient tablets and capsules. Unlike many diuretics, which can cause a loss of potassium, magnesium and calcium from the body's stores, Colladeen® Original has no effect on the body's mineral balance.

## 12. How quickly might I see an improvement with Colladeen®?

Do not expect Colladeen® Original to work as quickly as diuretic preparations i.e. within a few hours. Like most nutrients, it takes time for the concentration of anthocyanidins to build up in the body to meaningful amounts. A minimum 8-week course is recommended.

## 13. Is there anything else I can do to help ease the fluid retention?

Exercise several times a week to help your body release additional fluid and to lift your spirits. Cutting back on caffeine, alcohol and salt, which can make the fluid retention worse, are also good ideas to put into practice. You don't need to avoid these drinks altogether, just reduce them if you think you are having too much of them.

## 14. Are there certain foods that I should try to include in my diet?

As we have seen earlier in this booklet, the best sources of anthocyanidins are fruit and vegetables - so a good intake of these, say 5 portions a day, should suffice. Additionally, fruit and vegetables are an excellent source of the mineral, potassium, which can help balance the excessive amounts of sodium that most people eat. When a normal balance of sodium: potassium ratio is maintained, - the chances of fluid retention are reduced.

# COLLADEEN® Original

## Product information

### PRESENTATION

Colladeen® Original is a small pink tablet providing: 160mg of anthocyanidins per tablet. Colladeen® Original is suitable for vegetarians and vegans.

### USES

Colladeen® Original has been formulated to help alleviate 'puffiness' and other symptoms of non medical fluid retention. Areas most affected by this include the legs, bust, abdomen and fingers. Scientific studies have shown that some women suffer with these symptoms all the time, whilst others complain of a worsening of symptoms before a period (i.e. a pre-menstrual worsening). Colladeen® Original is a safe, natural food supplement that should be used in conjunction with a well-balanced diet. Colladeen® contains naturally-sourced anthocyanidins (extracted from grapeseeds and bilberries). Anthocyanidins are safe, natural flavonoids and are suitable for women of all ages and are not known to interact with medicines.

## Recommended Intake

### INITIAL INTAKE

Colladeen® Original is best taken daily for at least 8 weeks.

Two tablets should be taken each day; one in the morning and a further one in the afternoon or evening. Colladeen® Original does not have to be taken with food.

### MAINTENANCE INTAKE

After 8 weeks of taking 2 tablets a day, a maintenance level of 1 tablet per day can be tried. If, however, fluid retention problems recur, then 2 tablets can be safely taken over long periods of time.

### CAUTIONS

Sufferers of fluid retention caused by a medical condition should not use Colladeen® Original without consulting their GP.

Anthocyanidins have not been tested in pregnant and breast-feeding women and so these groups are recommended not to take Colladeen® Original.

### LEGAL CATEGORY

Colladeen® Original is a food supplement.

### PRICE

Retail price: **£15.50**  
(60 tablets)

