

Getting The Point



The Environ® Medical Roll-CIT™ is a revolutionary instrument for use by medical professionals, introduced and pioneered by **iiaa** expert panel member Dr. Des Fernandes, a leading South African plastic surgeon and founder of the Environ® range of skin care products and treatments. Here Dr Fernandes explains the principle of the treatment.

The Percutaneous Collagen Induction (PCI), or skin needling principle, provides a safe, minimally invasive alternative to more abrasive procedures. The simple technique involves a hand-held roller tool covered in rows of fine needles that create minute channels deep

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into the dermis, inducing a natural process of skin rejuvenation. Needling of the skin creates tiny areas of trauma that initiate a natural process of healing which releases numerous growth factors and also stimulates the production of collagen and elastin. As a result, the skin becomes smoother and tighter, without any damage to the overlying epidermis.

The surface cost...

Laser resurfacing was touted as the most successful and safe way to rejuvenate a face. There is no doubt that laser made a lot of people happy in the beginning because their faces looked smoother and more taut. But at what cost? The epidermis should never ever be damaged simply to make the skin smoother unless the risk of leaving it intact is greater than removing it. The need to remove wrinkles is not a good reason to destroy this highly complex, specialised organ. While it is only 0.2 mm thick, it is our only protection from the environment.

When we try to rejuvenate facial skin, we need to define exactly what we want. We need a perfect epidermis so that the moisture of the skin can be as good as possible. We need the horny layer, our main defence against UV rays and the environment, to be as intact and compact as in a young skin. A thick spiny layer of the epidermis will add protection from UV rays and the basal keratinocyte layer must be as fresh and active as it can be with minimal deposition of excessive melanin. A thick layer of collagen and functional elastin in the dermis and a good blood supply are essential.

A microscopic inspection of any photo-damaged person reveals that each of these main points has been compromised by sun damage. Destruction of the epidermis is not the best way to correct this damage. Topical applications of vitamin A and the antioxidant vitamins C, E and beta-carotene on the other hand are effective and safe.

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The normalising effects of vitamin A will largely restore the epidermis to a much more youthful appearance. However, the real problems of wrinkled, sagging skin lie in the dermis, where collagen has been damaged and has become thinner. Topical vitamin A will not produce dramatic changes in the elasticity of the dermis.

Percutaneous Collagen Induction is the ideal technique and two forms of needling are available. In one form the skin is penetrated only into the upper layers of the dermis by using needles that are 1mm long and this is the recommended tool for treating wrinkles and shallow scars. The other method uses needles that are 3mm long and these penetrate deeply into the dermis and can be used for acne and burn scars as well as wrinkled skin. Both techniques preserve the epidermis and stimulate collagen deposition in the dermis.

The procedure may be done with topical anaesthetic if the 1mm tool is being used. Conversely, when 3mm needling is done, one needs more profound anaesthesia and local anaesthesia assisted by conscious sedation is essential. I recommend a light general anaesthetic for needling of extensive areas such as the face and neck, décolleté, arms and trunk. Simple regional anaesthesia may be sufficient for some people, for a small area such as the upper lip.

How does Percutaneous Collagen Induction work?

PCI results from the natural response to wounding the skin, even though the wound is miniscule. Each tiny wound goes through the three classic phases of wound healing:

1. Inflammation
2. Proliferation (tissue formation)
3. Tissue remodelling.

Each needle prick minutely injures the upper 0.5 mm of the dermis, causing some localised damage and bleeding. This

in turn promotes the normal post-traumatic release of growth factors and infiltration of fibroblasts. This surge of activity inevitably leads to the fibroblasts being 'instructed' to produce more collagen and more elastin. Needling only penetrates through the epidermis and does not remove it, so the tiny punctures will rapidly heal. As the skin swells, the holes are closed and the slight abrasion is no worse than a very mild peel. With a single needle prick through the skin this would be a relatively unimportant response. However, when thousands are placed next to each other these effects virtually merge and a sheet of collagen will be laid down in the area just below the epidermis. Collagen slowly shortens after a few months and so the skin tightening is progressive.

Post treatment

Immediately after the 1mm treatment, the skin is somewhat pink and the patient can easily return to work the next day. With 3mm needling the signs are more extreme. The skin may be crimson coloured with some bruising but bleeding is minimal, though there is some oozing of serum that stops within 30 – 40 minutes. After all this is only a pin-prick! Covering the skin with a vitamin A and antioxidant vitamin gel following treatment promotes better healing and even better production of collagen. By the evening, the skin feels tight and while it appears rather uncomfortable, it is only slightly sensitive. The next day, the skin appears less dramatic and by day four to five the skin has returned to a moderate pink flush which is usually easily covered with make-up. The skin is slightly swollen for many weeks, but at the same time collagen and elastin are building up, the skin gradually tightens up and the swelling disappears. The elastin and collagen 'factories' will be working for several months and so as time goes by the result will improve.

Patients should nourish their skin adequately with vitamins A and C and also ensure that it is protected from free radical damage to prepare the skin for the procedure and on an on-going basis afterwards. To obtain the best results, patients should have been using high levels of these vitamins on their

face and body. There is even further improvement with regular treatments of Sonophoresis and Iontophoresis to promote vitamin penetration.

Indications

The key indications for skin needling are:

1. To restore skin tightness in the early stages of ageing. This is the prime indication for 1mm needling which is a relatively minor procedure and can safely be recommended. Some patients who had considered having a face lift were satisfied with the result of simple needling of the skin.
2. To avoid laser resurfacing, especially in people with thin skin who cannot have this treatment safely.
3. Acne scarring. I have had great success with needling for acne scars, with results superior to dermabrasion. In many cases 3mm needling is necessary rather than 1mm needling.
4. Fine wrinkles - another indication for 1mm needling.
5. Lax skin generally is best treated with 1mm needling.
6. Visible bleached scars. The appearance of scars, including stretch marks, is softened and improved.
7. Less severe scars. Children with scars can be treated.

Advantages

In addition to the advantages listed above, medical needling helps thicken and rejuvenate the skin, reduces pigmentation marks and diminishes the appearance of dilated blood vessels. Thin skin can be treated because the epidermis is perfectly preserved. It is less expensive than laser resurfacing and unlike resurfacing, there is no sun sensitivity afterwards. The procedure does not damage the skin, in fact it becomes thicker, the healing phase is short and within five days patients can go out into public. Large areas can be treated on the face, neck, hands, chest, arms

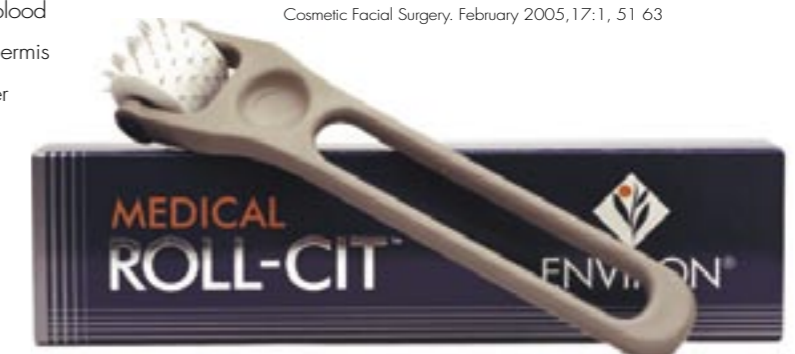
and thighs with this extremely safe technique.

One treatment alone may not make dramatic enough changes so many clients may wish to repeat the procedure to get the desired result. The treatment can be repeated as early as one week later, especially with 1mm needling, but this is variable. To achieve a smoothing comparable to a laser resurfacing, depending on the original state of the skin, a total of three to four treatments may be required. I recommend a course of six treatments performed every week or two. The results that are achieved are not temporary but endure for many years, with the understanding that the long term outcome is utterly dependant on adequate nutrition for the skin.

Skin needling is a natural process that in many ways reverses the changes due to ageing and ideally should be used not merely with a scientific skin care regime, but also with medical anti-ageing strategies.

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Foods that work better than drugs

Patrick Holford

Do you take drugs for a chronic disease? Are you on pills to stop pain, or to lower your blood sugar level, blood pressure, or cholesterol? Would you like to find relief and reduce your risk of becoming ill without being on the drugs?

Many doctors tell patients with chronic conditions that they only need to worry about maintaining a healthy, balanced diet - that there's no evidence special food or supplements can make a difference for them. However, my latest book, written jointly with medical journalist Jerome Burne, draws on more than 500 scientific references to explain what diets and foods can make a big difference and why the drugs you're taking may not be as effective as they're made out to be.

Example 1: Achieve a Healthy Cholesterol Level

There are two kinds of cholesterol—LDL, the bad kind that you want to keep low, and HDL, the good kind that helps keep your arteries clear. A lot is made about the importance of lowering LDL cholesterol, but raising HDL is actually the most effective way to cut your risk of a heart attack.

What's the best way to do that? Certainly not by taking one of the statin drugs prescribed to millions of people around the world. It's by taking niacin, a simple B vitamin (B3, to be exact). According to a recent review in the *New England Journal of Medicine*, niacin can increase HDL levels by 20 to 35 percent, whereas statin drugs raise HDL levels by only 2 to 15 percent.¹

Even better, niacin can also lower LDL cholesterol by up to 25 percent, which is about the same amount you can expect from a statin drug. I recommend 500mg of 'no-flush' niacin because niacin, in large amounts, makes you blush. But you don't need to stop there. Omega-3 fatty acids found in fish oil can bring your chances of a heart attack down even further.

A recent Japanese study gave more than 9,000 people both the omega-3 fat called EPA (1.8 g a day) and a statin drug. It then compared that group with 9,000 more people who were given only a statin drug. After 4.5 years, those taking the omega-3 fat had a 19 percent lower incidence of cardiac death, heart attack and other serious cardiovascular problems.² Omega-3 fatty acids are found naturally in oily fish. Eating just one serving of oily fish a week cuts your likelihood of having another heart attack by one-third. Recently the UK's National Institute of Clinical Excellence (NICE) has advised doctors to prescribe 1g of omega 3 fish oils to anyone who has had a heart attack.

Andrew is a case in point. His cholesterol was measured at 8.8 mmol/l. He was put on statin drugs and, six months later, his cholesterol level was 8.7. He was also gaining weight, feeling tired, stressed and not sleeping well. With help, Andrew changed his diet and started taking supplements of niacin and omega-3 fatty acids. Three weeks later he had lost 5 kilos, his energy level was great, he no longer felt stressed, and he was sleeping much better. And his cholesterol level had dropped to a healthy 4.9!



Example 2: Lower Your Blood Sugar Level

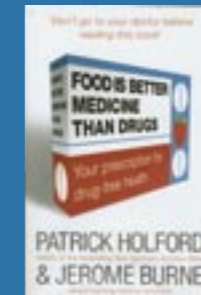
If the amount of glucose in your blood is too high, you are either on your way to developing diabetes or you already have it. If you have diabetes, it's very likely that your doctor will prescribe you the drug metformin. Metformin makes insulin - the hormone that takes sugar out of the blood - work more effectively, but the drug won't cure the underlying problem. You have to keep taking it!

A better solution is the mineral chromium and the spice cinnamon, both of which can do the job just as effectively. More than 20 studies of chromium show that its use can reduce high blood sugar levels better than metformin. Plus, because the toxic level is 20 times the recommended dose, there are no side effects.

Half a teaspoon of cinnamon a day can also significantly reduce blood sugar levels. In one study, all diabetics responded to the cinnamon within weeks and recorded blood sugar levels 20 percent lower on average than diabetics in the control group.³ Some of the volunteers taking cinnamon even reached normal blood sugar levels.

Need more motivation? Although combining drugs can cause further problems, non-drug treatments usually reinforce one another - which means there's even more you can do for diabetes. Oats - specifically oat bran - can minimize the rise in blood sugar that normally follows a meal. More than 1,000 studies have shown that when a key ingredient, beta-glucan, makes up 10 percent of your diet, the blood sugar spike after a meal can be cut in half.^{4,5} This is far more effective than metformin, at a fraction of the price and with none of the side effects!

Linda, who had suffered with diabetes for a decade, is an example of what can be done with nutrition. Within six weeks on my low-glycemic load diet that included oats, cinnamon, and chromium, her diabetes was gone. "My blood sugar level used to be high, between 11-18 mmol. Now it's between 4 and 8. The optimum is 7, so my blood sugar is well under control. The other thing is the energy. I used to feel permanently tired and could have spent the whole day in bed. Now my energy level is incredible." She is one of many type 2 diabetics who has reversed her condition with diet and supplements.



If you frequently take medication, from painkillers to sleeping pills, you might want to check out what works better naturally by reading 'Food is Better Medicine Than Drugs'.

Available from iiaa £16.99 (+P&P)

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Report Back Paris 2006



As a recent delegate to the World Congress on Anti-Ageing in Paris founder of **iiaa**, David Alpert, highlights some of the interesting information put forward at the congress.

Dr George Roth reminded the audience that the only clinically proven reproducible means to increase longevity is through caloric restriction. Since this has its drawbacks, not least of which is low libido, scientists have been searching for a mimetic – nutraceutical that will mimic caloric restriction without the side effects. A number of papers published in scientific journals this year have heralded resveratrol, the substance found in red grape skins, as the breakthrough discovery that yields just such a result. A paper published in Current Biology showed that resveratrol prolongs lifespan by 59% and retards the onset of age related markers in short lived vertebrates without having to restrict caloric intake.

Often referred to as the anti-ageing hormone, DHEA is secreted by the adrenal glands. Dr Christophe De Jaeger showed how plasma levels peak at



approximately 25 years and then progressively diminish thereafter – by about 95% by the age of 85 years. DHEA increases the body's ability to transform food into energy and burn off excess fat and has been found to reduce risk factors associated with age related heart disease. It improves blood vessels by stimulating the linings to produce nitric oxide, a substance that relaxes arterial tension. Recently researchers have discovered important anti-inflammatory properties and since inflammation contributes to the killer diseases of ageing (Alzheimers, heart disease and certain cancers) supplementation with DHEA as part of an overall anti-ageing programme was suggested.

Professor Yoshikazu Yonei from Kyoto, Japan warned against the use of Cox 2 anti-inflammatory drugs for the treatment of bone and joint pain because of the increased risk of heart attacks and/or strokes. Anti-ageing therapies to protect bones and joints should start early and include food therapy with appropriate intake of minerals such as calcium and magnesium as well as vitamins such as Vitamin D and Vitamin K. He stressed the need to avoid phosphorus whilst ensuring adequate protein consumption. Since the hormones estrogen and DHEA are involved with bone metabolism these should be replaced to optimal levels. Physical exercise is essential and muscle weight training is needed to maintain the strength of the muscles that protect joints and bones. Stretching is effective on muscle rigidity which often causes back pain or hip joint pain.

Dr Dominique Rueff, speaking on alternatives to statins in treating raised cholesterol, emphasised the need to look at the global risk for the patient before simply prescribing statins on the basis of raised total cholesterol. Of particular importance is the HDL / Total cholesterol ratio. Some alternatives to statins he suggested were policosanol, a sugar cane extract, or red rice yeast, which has been shown to reduce LDL cholesterol by 21.1% and up to 33% respectively. Other useful nutraceuticals included garlic, green tea, curcumin and omega 3 fatty acid.

IIAA launches Benelux division

The International Institute for Anti-Ageing has launched its second European division covering the Benelux countries of Belgium, Holland, France and Luxemburg.

David Alpert, founder of **iiaa** met with H el ene van Houdt, Benelux distributor of Environ® vitamin skin care and *jane iredale*, at her company headquarters just outside Brussels. They discussed the programme of **iiaa** events being planned over the next eighteen months.

Said H el ene, "In Belgium the consumer is very interested in health matters and therapists want more advanced post-graduate education programmes. This is an exciting

new market and we know that beauty therapists will be empowered by the knowledge gained from the **iiaa**."

Dr Des Fernandes was a key speaker at the **iiaa** Benelux launch event in Antwerp in Belgium on 1st October hosted by H el ene van Houdt. Also presenting was Melanie Herff a Nutritionist based in Germany who trained with Patrick Holford. She spoke about the importance of nutrition, supplements and lifestyle on anti-ageing and skin care.

The Benelux launch is an indication that salons and spas across Europe are enthusiastic about a more inclusive approach to anti-ageing and **iiaa** are expecting a number of visitors from Europe to their Successful Ageing conference in April 2007 (for details see page 8).



Skin analysis expert holds 1st IIAA Germany event

Florence Barrett-Hill, Australasia's most revered skin diagnostic expert, held her first courses for **iiaa** in Germany recently. The German branch of the International Institute for Anti-Ageing held the three-day Advanced Skin Analysis Course as their first educational event. It was a great success and ended with a standing ovation for Florence Barrett-Hill!

Florence Barrett-Hill's book, Advanced Skin Analysis, (available through **iiaa**) is a comprehensive guide for industry professionals and much of the vital information in the book is covered in detail on her course. She promotes skin analysis as a valuable service that should be separate to a facial and her course covers the practicalities of developing this service and the benefits to the salon and client alike. Florence Barrett-Hill has also been confirmed as a speaker at the **iiaa**'s 'Successful Ageing 2007' where she will conduct a half-day seminar on pigmentation as part of the overall programme (see page 8 for event details).

IIAA recruitment

Due to rapid expansion we have a number of vacancies at our head office and out in the field. If you would be interested in working with us please send your cv to admin@iiaa.eu or post to **iiaa**, Unit 1, 1000 North Circular Road, London NW2 7JP.

ESSENTIAL READING

Hidden Food Allergies

By Patrick Holford &
Dr James Braly

£7.99 from iiaa



One in two people, including up to 70% of the chronically ill, suffers from a hidden food allergy. Are you one of them? Classic symptoms that could be causing you unnecessary

pain and discomfort include: weight gain, strong food cravings, bloating, abdominal pain, irritable bowel, chronic fatigue, rhinitis, asthma, ear infections, joint aches and pains, hyperactivity and bedwetting in children, itches and rashes...and many more. If your symptoms come and go with no obvious reason then you may have a hidden food allergy.

This book will help if you feel you may be intolerant to a food, find it impossible to lose weight or simply have a range of minor symptoms your doctor can't treat. It identifies the most common allergens, helps you to diagnose an allergy, and contains a full action plan to guide you through getting tested, elimination diets, lifestyle and dietary changes.

Solve Your Skin Problems

Patrick Holford & Natalie Savona

£6.99 from IIAA



Your skin reflects your body's health. Now you can find out how to have super-healthy skin and solve your skin problems with practical, easy-to-follow advice. In this comprehensive new book

you'll discover how to detox for clear skin; conquer acne, cold sores and rashes, banish cellulite, heal psoriasis, eczema and dermatitis and prevent skin cancer while rejuvenating your skin inside and out.

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New Courses from iiaa

Nutrition Technician Course

The **iiaa** believe that in order to achieve the best results for clients, nutritional advice should be part of every skin consultation and to support this they have now launched a new practical course for therapists.

This practical 2-day course gives salons the tools to utilise nutrition to support skin care treatments and enhance the effectiveness of skin care regimes. It will enable therapists to deliver safe and effective diet and supplement advice as well as giving additional advice on what foods to eat and what foods to avoid for glowing skin. The Course will also help them recommend individual supplement programmes from the Advanced Nutrition Programme range of products formulated by Patrick Holford exclusively for the salon and clinic environment.

The Nutrition Technician Course is based on Patrick Holford's research and is awarded 10 CPD Credits. Venues include: London, Bristol, Leeds, Glasgow, Dublin. Costs: £120 (+VAT) per person (includes 1 year free membership to **iiaa**)

Advanced Make-up Techniques Course

By popular demand a new one-day *jane iredale* Stage 2 Technique Training Course has been developed to help therapists and make-up artists acquire specialist make-up application techniques whilst getting the very best results from the extensive product range

Make-up designers on TV and film sets from The West Wing to Dr Who to Harry Potter and Sky's Dream Team are finding the lightweight coverage of mineral cosmetics from *jane iredale* vital in the world of hi-definition and digital technology.

The course covers advanced colour guidance with feature correction, problem skin and camouflage alongside bridal and special occasion make-up and a style guide for all eye shapes. The course is awarded 5 CPD Credits and venues include London, Leeds, Bristol, Glasgow and Dublin. Costs: **iiaa** members £65 (+VAT) per person. (Non **iiaa** members £85+VAT)

UK Diary Dates

February & March:

Nutrition Technician Course and Advanced Make-Up Techniques Course

These courses are ongoing throughout the year. Please call **iiaa** for dates, venues and availability.

April:

16 & 17 : Successful Ageing 2007, London

Leading speakers from the USA, South Africa, Australasia and Europe make this a must-attend Conference. Places are limited at this principal event of the **iiaa** year, so book yours now!

18 - 20 : Florence Barrett-Hill, Advanced Skin Analysis, London

23 - 25 : Florence Barrett-Hill, Advanced Skin Analysis, Scotland

To book or for more information on any courses contact **020 8450 7997** or email admin@iiaa.eu