

Innovative laser diode system for body shaping and fat reduction

## The company

Chromogenex have been at the forefront of laser and light based technology for over 20 years. Established in 1986 the company has grown from a manufacturing and repair service to becoming a global company with a wealth of experience in Clinical research & Training, Customer support & Service, Manufacturing & Research.

### Quality commitment

Chromogenex operates a quality system that meets European Medical Device Directives, United States FDA cGMP and CMDR (Canadian Medical Device Regulation). Having successfully distributed our devices in over 40 countries worldwide, meeting all product, system and regulatory requirements, our notified body (SGS UK standards (ISO 13485/2003).

At Chromogenex we take pride in the quality of our products and ensure every device we manufacture undergoes a comprehensive and demanding programme of inspection and test.



# Innovations

Chromogenex has a rich history of ground breaking innovations in the laser industry with a number of new exciting projects in the pipeline.

1990 Invented Europe's first pulsed dye laser - Chromos 585.

**1994** Patented the worlds first Ruby laser for hair removal.

2003 Designed and tested Smartlite technology IPL system.

2008 Designed and launched the UK's first non invasive laser body shaping and fat reduction system.

# Product range

nicolite

Low level laser therapy system for smoking cessation.

regenlite

Patented pulsed dye laser for acne. skin rejuvenation, vascular lesions.

phaserep

Intense pulsed light system for hair removal, skin rejuvenation and vascular treatment.

fusion3D lift

Skin rejuvenation and tightening

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### Innovative laser diode system for body shaping and fat reduction

- **1998** Patented the use of pulsed dye laser for the non-ablative wrinkle removal using a fast rise pulse.
- **2004** Received the first FDA clearance for laser treatment of acne.
- **2005** Designed and tested one of the worlds first combination body shaping systems.
- **2010** Designed and launched the UK's first non invasive 3D face lift system.

### Innovative laser diode system for body shaping and fat reduction

## i-lipo

i-lipo is a revolutionary new low level laser system for fat reduction and body shaping treatments. The i-lipo uses photobiomodulation to trigger the bodies natural processes which release the contents stored in adipose cells. On a day-to-day basis the human body is constantly storing excess calorie intake from the diet into adipose tissue for future use.

#### i-lipo technical specification

Laser type diode wavelength -Energy output -Mains power output -Safety -Classification -Dimensions -Weight -Cooling requirements Electrical requirements -Fuses -Mode of operation Ingress rating Environmenta requirements -

38 x 40mW (Total 1.3W) 100Va On board diagnostics Electrical Class 1, Type B applied part 32cm x 46cm x 44cm (does not include stand) 9.10kg Air cooled

5A Ceramic timed Continuous **IPXO** 10°C to 30°C Non-condensing Humidities below 75%RH

650nm - 660nm

240V/5A/50Hz

When required, signals from the brain result in the contents of cells being released and the contents are then metabolized to provide energy to the bodies tissues. In essence the adipose cells are acting as rechargeable batteries, sometimes being charged up and sometimes being used depleted depending on a persons diet and exercise. When we exercise we create a demand for extra energy in the bodies tissues and normally the body responds by releasing the fuel stored in any adipose tissue. I-lipo simply stimulates the release of these contents before the body has actually embarked on the exercise, which enables us to specifically concentrate on troublesome areas.

The treatment is relaxing and pain free and a typical client can expect to reduce an area by 1-2 dress sizes during a course of treatments.

While a quick fix can be obtained in just a few sessions, adjustments to diet and exercise regime will ensure a long term result.



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## How does i-lipo work?

The target chromophore for lipolysis is the mitochondria of the adipose cells. This 'energy factory' uses proton pumping to create the energy required for the cell to live and contains tiny colour targets for the visible red light emitted by the i-lipo. Since the i-lipo is a cold laser the low level of laser light used creates a photobiomodulation effect as opposed to a thermal effect. This biomodulation signals a change in the cell chemistry inside each individual adipose cell which similarly forces a change in the charge distribution on the cell membrane creating pores of channels in this wall.

Energy from the diet is stored in the adipose cells as bulky un-reactive molecules called triglycerides. Triglycerides are not directly used by the body's metabolic pathways to create energy; instead they have to be converted into usable 'fuel'. The alteration in the cell chemistry created by i-lipo triggers the release of a lipase enzyme which can break the large triglyceride molecules down into fatty acids and glycerol - molecules which are now small enough to exit the cell through the pores and are the required fuel for metabolism.

Red light laser fired at fat cells

stimulated nich alters ce chemistry

n cell wall by

roken down into fatty acids and glycerol interstitial tissue

# Product positioning

A typical i-lipo treatment will involve the positioning of up to four treatment pads containing the laser diodes over the intended treatment zone. These pads are held in direct contact with the skin with elastic straps. Two further laser probes are also then secured onto the region of the lymphatic nodes closest to the treatment area. Once in place the client can relax and just enjoy the treatment or indulge in other treatment options at the same time as their body shaping.





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Once the cell contents are evacuated into the surrounding interstitial tissue, they are picked up by the lymphatic system for transport to the tissues of the body for use. I-lipo maximizes lymphatic flow by stimulating the lymphatic nodes nearest the treatment area with additional low level lasers.

Exercise after treatment creates a demand for energy within the body - a demand that can now be met by the newly released fatty acids and glycerol removing them from the bodies fat storage system.







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# i-lipo advantages

Where other laser and light treatments require the constant manipulation of the device by the practitioner, once positioned on the client, the i-lipo treatment leaves the practitioner free to perform other treatments. maximizes clinic earnings. Treatment is quick and uncomplicated, and can be completed in just 30 minutes.

The i-lipo employs 'green technology' making it fully interactive with future paddle/handpiece developments without having to invest in a brand new system.

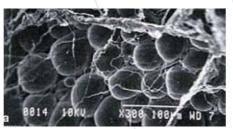
The i-lipo package offers the opportunity for nutritional and calorie controlled supplements as well as adjunct treatments for physical and lymphatic health, appetite suppression and facial rejuvenation to support your client through out the whole treatment procedure.

#### New Ultra Accessory

The New Ultra accessory for i-lipo incorporates vacuum massage and infra red skin tightening to target more stubborn fatty deposits, enhance lymphatic drainage, improve blood circulation and promote skin renewal. i-lipo is effective in reducing fat cell size by triggering the body's natural release of fat cell contents through photobiomodululation. The vacuum massage action of the i-lipo ultra enhances the removal of released fat cell contents and by its suction action optimises absorption of infra red laser in the dermis to promote collagen growth and enhance blood circulation in the area. The result is a slimmer, tighter and smoother looking skin. Vacuum massage can be performed for 10 minutes before and 10 minutes after i-lipo laser treatment to help stimulate the lymphatic system and break down stubborn fat. Once i-lipo has released the fat cell contents the post treatment ultra can assist in removing released fat and promoting skin cell renewal and blood circulation for

a healthier firmer skin and improving the

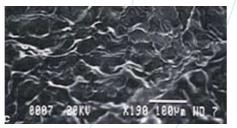
appearance of cellulite.



connective tissue



seen coming out of the adipose cell through a disrupted membrane.



At 6 mins of laser exposure, the fat is almost completely (100%) liquefied outside the cell.

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# i-lipo treatment course

The suggested treatment course is eight treatment sessions. These are performed up to twice per week so body reshaping can be completed in just four weeks.

We advise that only one treatment area is treated on any one day to maximise the client's chances of completely 'burning off' the contents of the adipose cells with their post treatment exercise. If they do not do enough exercise, or too much fatty acids and glycerol are released, such as by the treatment of two areas, there is a risk that the unused contents will be restored by the body back into the empty fat cells.

Once a course has been completed the client can be moved onto a lifestyle maintenance schedule, which might include occasional i-lipo treatments to correct future diet indulgence or they can embark on a new course of treatments on a new anatomical location.

Nutritional supplements can also be included into the i-lipo treatment course and maintenance schedule to encourage metabolic activity and support a healthy lifestyle.

# **Clinical results**







Before Tx Measurement 1: 57cm Measurement 2: 53.25cm Measurement 3: 49.5cm

After 7 Tx Measurement 1: 54.5cm Measurement 2: 51.25cm Measurement 3: 48cm

#### Protocol: Abdomen Female 46.





Before Tx Measurement 1: 111.5cm Measurement 2: 115cm Measurement 3: 114.5cm After 2 Tx

After 4 Tx

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Before close up



After 7 Tx close up





Measurement 2: 108.5cm Measurement 3: 110.5cm

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Chromogenex Technologies Ltd. Units 1 & 2 Heol Rhosyn, Dafen Industrial Estate Llanelli, Carmarthenshire, South Wales SA14 8QG UK T +44 (0)1554 755444 F +44 (0)1554 755333 ilipo@chromogenex.com chromogenex.com