

Patient Information Sheet

Treatment of Pigmented Lesions using the Ruby Laser

Lasers have been used very successfully for treatment of pigmented lesions for more than 25 years. For the last 17 years the Q Switched Ruby Laser has been the medically acknowledged laser of choice for most pigmented lesions. The following information is designed to cover the most commonly asked questions.

Why is a pigmented lesion so difficult to remove?

It is difficult to remove pigmentation without affecting the surrounding tissue. Before the development of laser therapy the only alternatives were to physically remove the pigmentation and the surrounding skin by surgical excision and skin grafting or to chemically destroy the pigmentation using salts or acid. Such techniques cause considerable discomfort, damage to the surrounding skin and require significant after care. Typically they replace the original pigmentation with a scar.

How does the Q Switched Ruby Laser work?

The laser produces extremely short pulses of high energy red light. This light is absorbed strongly by the pigmented lesion but not by the surrounding skin. The pigment heats up and breaks down into tiny particles. These minute particles are then targeted by the body's own immune system and removed gradually over time. Since each laser pulse is so short (eg 25 billionths of a second) and the energy is selectively absorbed by the pigment, surrounding tissue is not usually affected and there is normally no lasting damage to the skin. Successive treatments are needed, usually at 4-6 week intervals, so that this whole procedure is repeated and the body can remove as much pigment as possible.

Can a pigmented lesion be removed in just one treatment?

Only very rarely. Generally we would expect several treatments to be required.

How many treatments are required to remove the average lesion?

Due to the many variations in size, colour and type there is no such thing as an average lesion. The number of treatments required will also depend on the body's own defence mechanism and how effective it is – each individual responds differently. As a guide most lesions can take anywhere between 2-8 treatments. Without seeing the lesion it is impossible to be more accurate, a free consultation is provided where a better estimate can be given.

What are the costs likely to be?

The cost of a single treatment will depend solely on the size and density of the pigmented lesion. The bigger the area the more time it will take to treat and therefore the higher the charge. Until we see the lesion we cannot price the treatment. The minimum charge is £30 per treatment session.

Is the treatment cost fixed throughout the course of treatment?

As the lesion fades away, the size will normally reduce, although this is not always the case, some lesions will fade evenly without reducing in size. Consequently, treatment cost is re-assessed on an individual basis as the treatment progresses. If the size of the lesion reduces significantly during treatment, the price will be reduced accordingly.

Do all pigmented lesions respond to treatment?

Unfortunately not. In most cases it will be apparent to the assessor whether there is likely to be a problem. Where there is any doubt, a test patch will be required to determine the likelihood of successful treatment. There is a charge of £30 for a test but, in our experience, it is better to find out about potential problems before the whole area has been treated and a large sum of money has already been spent. As with all medical treatments it is possible that not everyone will respond to treatment. Some patients may obtain a less than average response or may not respond at all.

How long does a treatment take?

This depends on the size of the lesion; a small lesion might take 5 minutes, where a large, or multiple lesions could take an hour or more of treatment. Again, the assessor will provide this information.

Does it hurt?

Yes, but the amount of pain felt will depend where on the body the lesion is, the amount of treatment required and your own pain threshold. Some patients hardly feel a thing where others will describe it as painful. Patients' descriptions range from an elastic band flicked against the skin to splashes of chip fat and even red-hot needles. The vast majority of people tolerate the treatment well. A topical anaesthetic cream can be prescribed if necessary.

Does the laser cause scarring?

Although there is a risk of scarring with any laser, in most cases scarring is not a significant risk for treatment with the Ruby Laser. The first lasers used were high powered, very aggressive and carried a much higher risk of scarring. The Ruby Laser does not heat the surrounding skin and the risk of scarring is very much reduced. The risk of scarring is mainly, though not entirely, associated with a genetic pre-disposition to forming scar tissue. To reduce the risk of scarring we carry out a medical evaluation to identify high risk patients. We also have an adjunct treatment that can stop scar tissue forming and even improve existing scarring; consequently our scarring record is very low.

Are there any other side effects?

Some patients may blister after a treatment. This is quite normal and will usually resolve in a week or so (you will be given an aftercare information advice sheet on what to do). Once any blisters have subsided, the skin around the treated area may look and feel shiny for a number of weeks. Treatment cannot be repeated until the skin condition has returned to normal – usually 4-6 weeks.

The highest risk side effect is skin de-pigmentation (loss of natural skin colour). Because the laser targets dark pigments, ruby laser energy is also absorbed by the melanin in the skin. The most frequent side effect is for the natural colour in the skin to 'bleach' after a number of treatments. While normal skin pigment will usually recover, it can take months to do so and, in some rare cases, the natural colour of the skin may not return at all. As a general guideline, the darker the skin and the more treatments required, the more risk there is of long term de-pigmentation. Freckles often disappear at the site of the treatment. Because of the risk of damage to skin pigment, we will not treat tanned skin and will postpone treatment until any suntan has faded. We recommend that patients do not allow their skin to tan before or during treatment, thereby reducing the risk of long-term de-pigmentation. During the period of treatment a sunblock cream (SPF 30+) should be used daily or the treatment area kept covered.

An area which is particularly hairy may need to be shaved prior to treatment. The hair should grow back normally but there have been some reports of minimal and very slow hair growth.

Is the treatment safe?

The ruby laser has been used around the world for more than 20 years. Ruby laser energy is really just a strong red light and there is no linkage with any skin disorder or any increased risk of skin cancer. Obviously relevant precautions are taken to ensure the safety of the patient. Until April 2002 our clinic was regulated and registered by Wigan and Bolton Health Authority and we were subject to regular inspection. We are now regulated by the Care Quality Commission and subject to regular inspection and audit. Treatments are carried out by our own trained and qualified doctors and nurses. All practitioners regularly update their knowledge and skills.

About the clinic

Laserase Bolton has been based at the hospital in Bolton since 1994. Throughout, we have been fully registered with the appropriate governing body who inspects our clinic regularly. You have the reassurance that your treatment will be carried out either by a fully qualified and experienced doctor or nurse. All of our doctors and nurses have extensive training and experience and they regularly attend training and CPD courses .

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