

In Focus: LiteCure®



LightForce® Helps Keep Wolves in the Hunt

Wolverhampton Wanderers achieved promotion to the Premier League with one of the lowest injury rates in the Championship last season. fcbusiness speaks to 1st team physiotherapist Oliver Leaper, about his use of laser treatment within the medical department.

WORDS: AARON GOURLEY

fcbusiness: How long have you been using your LightForce therapy laser and what ailments is it used to treat?

Oliver Leaper: We introduced the system to our medical department in November 2017 and all of our therapists were trained in its use when we purchased it. It's primarily used to treat acute and chronic musculoskeletal problems but we also use it for pre-training and on the rehabilitation of players that we have in the department.

Due to it being a Class 4 therapy laser, it's very good for a range of deeper musculoskeletal problems or injuries because the infrared light can penetrate more deep tissue structures. We deal a lot with sub-acute muscle injuries, so in the initial acute stage, we use it to speed up the recovery of those problems.

We found it very useful for managing tendinopathies - so the patella, achilles and perennial tendinopathies respond well to treatment with the system. Tendinopathy is a degenerative condition of the tendons - as a result of that it can become a more chronic problem and takes time to heal but we found using the LightForce system it reduces the stiffness and discomfort that the players would experience with these problems.

Is that a common problem among footballers?

Yes, especially at the start of the season and usually follows a change in training load. For instance players come back into pre-season after having a period off or they go from a hard pitch to a soft pitch - the change in load can create problems with tendons. We found those pathologies responded quite well to the LightForce treatment.

What is your opinion of the LightForce system and the general opinion of those that use it?

Within our department all of our therapists



are trained to use the system and we've found that it's been positively received. I find that it's something that, depending upon the pathology, you use it in different ways. Even post-op it can be used to help with the recovery of scar tissue.

Are there any specific cases where you've used the treatment?

We had a player who came to us during the transfer window last season who'd had a chronic problem with his foot and ankle for quite a while which he unfortunately injured further and required surgical intervention. Post-surgery other treatment options were limited but we were able to start fairly early with a low intensity laser treatment programme once the initial operating wound had healed.

We were then able to adjust the power and the associated treatment during the rehabilitation process to assist with the healing of that area. We continued to use it once he was fit to help his body fully heal the area in which he'd had the injury and operation. He's a player that comes to the treatment room and requests the LightForce treatment which is a good sign that the player is feeling it's having a positive effect on them.

How do you identify and monitor the damage of injuries and the progress being made during treatment?

Primarily following injury or upon a complaint of an injury to our department, they would be assessed by a physiotherapist initially through a standard musculoskeletal assessment.

But we're very lucky to also have a very experienced doctor who is experienced in ultrasonography - so using an ultra-sound machine and he can perform an ultrasound scan in the treatment room which can give us more information and detail about a problem area and subsequently there could also be an MRI scan depending on whether the doctor requests it.

Are you planning to use the LightForce system in the new season ahead?

Yes. It's a very good system and it's able to be used by a range of our therapists within the department as well as being very portable. As it has a battery pack, when we travel to away fixtures or to training camps it's easy to take with us and means we can continue any treatment wherever we are - we're not confined to the training ground. So it will travel with us to every game this season.



FIVE THINGS TO KNOW ABOUT PBM (PHOTOBIOMODULATION THERAPY)

Medics are using laser therapy more often than ever before to help reduce pain and inflammation related to many common conditions. Thousands of medics and patients have experienced the benefits of laser therapy and are familiar with its therapeutic effects, but for those who aren't, there are 5 key things to know.

1. It reduces pain and inflammation without side effects

Laser therapy uses a process called photobiomodulation. Photons enter the tissue and interact with the cytochrome c complex within mitochondria. This interaction triggers a biological cascade of events that leads to an increase in cellular metabolism and a decrease in both pain and inflammation. Unlike medications, laser therapy reduces pain without undesirable side effects. It is also important to point out that patients report long-lasting pain relief. While the number of treatments required may vary depending on the acuity of the condition, many patients experience lasting relief after only a couple treatments.

2. Can be used for acute and chronic conditions

When treating acute conditions with laser therapy, it is particularly effective when it is administered as soon as possible following injury (assuming there is no active hemorrhaging). The faster the inflammation is reduced and the healing process can begin, the better. In the case of acute injury, laser therapy helps restore the body

to normal function quicker. With chronic conditions, laser therapy is used most often to help combat persistent pain and inflammation.

3. Treatments can be customized for each situation

Lasers that have larger power ranges offer versatile treatment options. A laser that can be set to operate from 0.5 W all the way up to 25 W allows the clinician flexibility to treat 'low and slow' or at maximum output. The availability of multiple treatment heads offers additional flexibility for the clinician. The LightForce Empower™ Delivery System, for example, features 5 different treatment heads, each designed to facilitate optimal delivery in different scenarios. It is important to have several delivery options to ensure the delivery method is appropriately matched to the situation. For instance, when treating over bony prominences, an off-contact treatment method is advisable. However, when treating deep-tissue structures, such as a hamstring muscle, an on-contact 'massage ball' attachment is best to reduce reflection and scattering, and also encourage deeper penetration by displacing excess fluids.

4. Treatments Feel Good

One common question related to laser therapy is, "What does it feel like?" Depending on the laser, it can create little to no sensation or it can create a gentle, soothing warmth. Many patients receiving Laser Therapy treatments report enjoying the experience, especially when a massage-ball treatment head is used to deliver what is often referred to as a "laser massage." Patients receiving treatments with higher-power lasers also frequently report a rapid decrease in pain. For someone suffering from chronic pain, this effect can be particularly pronounced.

5. Treatments Are Fast

With LightForce Class 4 lasers, treatments are quick, usually 5-10 minutes depending on the size, depth, and acuteness of the condition being treated. High-power lasers are able to deliver a lot of energy in a small amount of time, so therapeutic dosages are achieved quickly. For people with packed schedules, patients and clinicians alike, fast and effective treatments are a must.

DEEP TISSUE LASER THERAPY™

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