**Biologics**

**Common Questions**

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**More information can be found on**

**Dr. Stetson’s website at** [**www.sportsmedicinedr.com**](http://www.sportsmedicinedr.com)

**WHAT ARE BIOLOGICS?**

Biological pharmaceuticals are also called biologics and are a class of medications that are produced in a laboratory using living organisms, such as cells or tissues using biotechnology. They are often used to treat various medical conditions, including autoimmune diseases, cancers, and certain inflammatory conditions such as osteoarthritis and tendonitis. For orthopaedic surgery, biologics have the potential to treat many conditions and more research is being done every day.

**HOW DO BIOLOGICS WORK?**

Biologics work by targeting specific proteins, cells, or pathways in the body's immune system to treat or manage diseases. They can be made to increase or decrease immune responses, inhibit inflammation, or target specific cells involved in disease processes.

**WHAT CONDITIONS ARE TREATED WITH BIOLOGICS?**

Biologics are used to treat various conditions, including rheumatoid arthritis, osteoarthritis, psoriasis, Crohn's disease, certain cancers, and more. They are often prescribed when traditional medications have not been effective.

**HOW ARE BIOLOGICS ADMINISTERED?**

Biologics can be administered through injections into the muscle or fat of your body, or they can be administered intravenously, which is referred to as an IV into your veins. It really depends on the specific medication and what is being treated. Some newer biologics may also be available in oral forms meaning they can be taken by mouth just like a vitamin.

**WHAT ARE THE POTENTIAL SIDE EFFECTS OF BIOLOGICS?**

Every medication can have side effects and biologics are no different. Side effects of biologics can vary depending on the specific biologic and the condition being treated. Common side effects may include injection site pain, fatigue, and mild flu-like symptoms. However, serious side effects are possible, and patients are closely monitored for them.

**ARE BIOLOGICS SAFE DURING PREGNANCY?**

The safety of using biologics during pregnancy varies among different medications. It is important for pregnant individuals to discuss the potential risks and benefits with their healthcare provider to make informed decisions about treatment.

**HOW LONG DOES IT TAKE FOR BIOLOGICS TO WORK?**

The time it takes for biologics to start working can vary. Some individuals may experience improvement relatively quickly, while for others, it may take several weeks or months.

**ARE BIOLOGICS EXPENSIVE?**

Yes, biologics can be expensive due to the complexity of their manufacturing process. However, the cost can vary, and many factors, including insurance coverage and financial assistance programs, may help make these medications more accessible.

**CAN BIOLOGICS BE USED IN CONJUNCTION WITH OTHER TREATMENTS?**

Switching from one biologic to another may be considered if the initial treatment is not effective or if there are intolerable side effects. However, this decision should be made in consultation with a healthcare provider.

**ARE BIOSIMILARS THE SAME AS BIOLOGICS?**

Biosimilars are similar but not identical to biologics. They are similar in terms of safety and efficacy and undergo rigorous testing for approval. Biosimilars can offer more affordable alternatives to certain biologics.

**HOW ARE BIOLOGICS DIFFERENT FROM TRADITIONAL DRUGS?**

Biologics are different from traditional chemical drugs because they are typically large, complex molecules produced using living cells. Traditional drugs are usually small molecules synthesized through chemical processes.

**DO BIOLOGICS HAVE GENERIC VERSIONS?**

Unlike traditional drugs, biologics often do not have exact generic versions due to their complexity. However, there may be biosimilars, which are highly similar but not identical to the original biologic.

**HOW ARE BIOLOGICS REGULATED?**

Biologics are regulated by health authorities, such as the U.S. Food and Drug Administration, also called the FDA or the European Medicines Agency (EMA). They undergo rigorous testing for safety and efficacy before receiving approval for use.

**CAN BIOLOGICS BE USED IN CONJUNCTION WITH OTHER TREATMENTS?**

In many cases, biologics can be used in combination with other treatments, such as traditional drugs or therapies, to enhance their effectiveness. For orthopaedic issues such as osteoarthritis or tendinitis, additional treatments such as physical therapy, occupational therapy, or other types of non-invasive treatments can be used along with biologics and can be very helpful.

**ARE THERE ANY LONG-TERM RISKS ASSOCIATED WITH USING BIOLOGICS?**

The long-term risks of biologic use can vary depending on the specific medication and the individual patient. Regular monitoring and communication with healthcare providers are essential to assess and manage any potential risks.

**WHAT IS PRP THERAPY?**

Platelet-Rich Plasma therapy, also called PRP, involves extracting a small amount of your blood, processing it to concentrate the platelets, and then injecting the PRP into the injured area to stimulate healing.

**WHAT ARE PLATELETS?**

Platelets are cell fragments found in blood that have several roles in your body. Platelets are most commonly known to assist in clotting blood. They also play a role in your body’s reparative processes. Platelet rich plasma, or PRP, is made up of high concentrations of platelets and growth factors from your own body. PRP can promote healing.

**HOW DOES PRP WORK?**

Platelets in PRP contain growth factors that can promote tissue repair and regeneration. When injected into a damaged area, PRP can enhance the body's natural healing processes. An injection of PRP is known to decrease inflammation and may reduce cartilage degeneration in the knee. It is used for a wide variety of clinical applications including a number of orthopedic conditions such as tendonitis and osteoarthritis. PRP is often considered when other treatment options have failed.

**IS PRP SAFE?**

PRP is generally considered safe since it uses the patient's own blood, reducing the risk of allergic reactions or infections. However, as with any medical procedure, there are potential risks, and it's important to discuss them with your healthcare provider.

**IS PRP PAINFUL?**

PRP does require blood to be drawn, usually from your arm. The procedure may cause some discomfort, similar to an injection. Local anesthesia may be used to minimize pain during the procedure.

**HOW LONG DOES A PRP SESSION TAKE?**

The entire PRP procedure, from blood draw to injection, typically takes at least one hour but may take up to 2 hours. The injection itself is relatively quick.

**HOW MANY PRP SESSIONS ARE NEEDED?**

The number of sessions can vary depending on the condition being treated and individual response. Some patients may experience improvement after one session, while others may require multiple sessions spaced over weeks or months.

**WHAT IS THE RECOVERY TIME AFTER PRP THERAPY?**

Recovery time is generally shorter compared to surgical procedures. Patients may experience some initial soreness at the injection site, but they can typically resume normal activities within a few days.

**ARE THERE ANY SIDE EFFECTS OF PRP?**

Side effects are usually mild and temporary. They may include swelling, bruising, or pain at the injection site. Serious side effects are rare but should be discussed with the healthcare provider.

**DOES INSURANCE COVER PRP THERAPY?**

Insurance coverage for PRP therapy can vary. Since it is often considered an elective procedure, patients should check with their insurance provider to determine coverage. As further research is done, PRP should start to be covered by more insurance companies.

**WHO IS A GOOD CANDIDATE FOR PRP?**

Good candidates for PRP therapy are individuals with musculoskeletal injuries or conditions that have not responded well to conventional treatments. However, not everyone is a suitable candidate, and the decision should be made in consultation with a healthcare provider.

**WILL MY INSURANCE COVER BIOLOGIC TREATMENT?**

At this time some insurance companies are covering biologic treatment, and others are not. You should check with your insurance company before starting any biologic treatment.

**WHAT ARE STEM CELLS?**

Stem cells are cells in our body which can grow into anything and are called undifferentiated cells. They have the unique ability to develop into various cell types in the body. They can self-renew,

meaning they can grow and differentiate into specialized cells, contributing to tissue repair and regeneration.

**WHAT IS STEM CELL TREATMENT?**

Stem cell treatment involves the use of stem cells, or cells which can grow into different types of cells. to repair, replace, or regenerate damaged or diseased tissues. This can be done through injections, implantations, or other methods depending on the specific treatment approach.

**WHAT CONDITIONS CAN BE TREATED WITH STEM CELLS?**

Stem cell treatments are being explored for a wide range of conditions, including orthopedic injuries, cardiovascular diseases, neurodegenerative disorders, autoimmune diseases, and more. They have the potential to treat many significant orthopedic injuries but for now, the research is still ongoing and we are not quite sure what role they will play.

**ARE THERE DIFFERENT TYPES OF STEM CELLS?**

Yes, there are different types of stem cells, depending on where they come from. These include embryonic stem cells, induced pluripotent stem cells, called iPSCs, and adult or somatic stem cells. The source of stem cells used in treatments can vary.

**WHERE DO STEM CELLS COME FROM FOR TREATMENT?**

Stem cells come from various sources, including embryos, umbilical cord blood, bone marrow, adipose tissue, also called fat, and stem cells created in a laboratory.

**IS STEM CELL TREATMENT FDA APPROVED?**

The FDA has approved certain stem cell therapies for specific conditions, such as the process known as hematopoietic stem cell transplantation for certain blood disorders. However, many stem cell treatments are still in the experimental or investigational stage.

**WHAT IS THE DIFFERENCE BETWEEN AUTOLOGOUS AND ALLOGENEIC STEM CELL TREATMENTS?**

Autologous stem cell treatments use the patient's own stem cells, while allogeneic treatments use stem cells from a donor. Autologous treatments typically pose fewer risks of rejection but may have limitations in terms of the quantity and quality of available cells.

**ARE THERE RISKS OR SIDE EFFECTS ASSOCIATED WITH STEM CELL TREATMENTS?**

While stem cell treatments are generally considered safe, there are potential risks, including infection, tissue damage, and an immune response. The specific risks can vary depending on the type of stem cells used and the treatment approach.

**HOW EFFECTIVE IS STEM CELL TREATMENT?**

The effectiveness of stem cell treatment can vary based on the condition being treated, the type of stem cells used, and individual patient factors. Some treatments have shown promising results in early-stage clinical trials, while others are still under investigation.

**IS STEM CELL TREATMENT COVERED BY INSURANCE?**

Coverage for stem cell treatment by insurance is variable and often depends on factors such as the specific procedure, the underlying medical condition, and whether the treatment is considered experimental.

**WHAT IS THE ETHICAL STANCE ON EMBRYONIC STEM CELL RESEARCH AND TREATMENT?**

Ethical considerations surround the use of embryonic stem cells due to concerns about the destruction of embryos. However, other types of stem cells, such as adult stem cells and induced pluripotent stem cells, do not raise the same ethical concerns as they do not come from embryos.

**WHAT IF I HAVE ANY OTHER QUESTIONS?**

If you have any other questions, more information can be found on Dr. Stetson’s website at [www.sportsmedicinedr.com](http://www.sportsmedicinedr.com) or just call Dr. Stetson’s office, we are always happy to answer any questions you may have.

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