

So your body can keep taking you down the path you choose

Regenerative Medicine

Autologous Cytokine Rich Serum (ACRS)

QREM® CYTOKINE

www.qrem-regenerative.com

Another step forward in regenerative medicine

Regenerative therapies using stem cells, adipose tissue cells and/or growth factors have seen very promising results in treating osteoarthritis, tendinopathy and sports injuries, among other conditions.

Recently, we've taken another step forward using cytokines, the proteins that direct cells in the regeneration process.

> ACRS (Autologous Cytokine Rich Serum) contains cytokines that take part directly intissue repair.

Citokines.

The language of our cells

Cytokines are proteins released by blood cells and platelets. These proteins are the messages used by cells to heal injuries and keep our bodies in good working order.

There are several families of cytokines, including pro-inflammatory cytokines, which promote inflammation; anti-inflammatory cytokines, which have the opposite effect, and growth factors, which stimulate tissue repair.

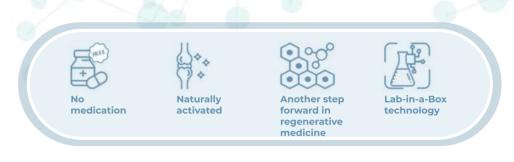
Our bodies need a good balance of all these cytokines. When this balance is off, tissues begin to deteriorate. ACRS provides the cytokines needed to help restore this balance.

Qrem Cytokine Lab-in-a-Box technology, fast and safe

Autologous Cytokine Rich Serum (ACRS) is obtained using the Qrem Cytokine device that incorporates advanced Lab-in-a-Box technology.

Qrem Cytokine is a novel device to obtain the cytokines involved in tissue regeneration.





Using the patient's own blood, ACRS is obtained through a patented biological process that emulates tissue damage ex vivo.

Lab-in-a-Box technology guarantees the ACRS is sterile throughout the process and can be used right in the physician's office. It is fast, so the doctor can administer the ACRS during the first visit. This avoids any risks that may come from storing this type of biological product.

The ACRS obtained helps activate the body's own repair system, providing the cytokines missing in the injured, worn or deteriorated tissue.

Benefits of Qrem Cytokine and how it works

Treatment with ACRS does not require a surgery room. It can be provided in the physician's office and consists of **3 very simple** steps:

- Blood is drawn from the patient, just like for blood tests.
- The patient has to wait 36 minutes while the ACRS is obtained using Qrem Cytokine technology.
- The physician then injects the ACRS into the area to be treated, and the patient can go home immediately.

ACRS activates the repair system

- Decrease inflammation
- Reduce pain long-term
- Improve mobility and function in the area treated
- Delay tissue deterioration (for example, cartilage)

ACRS doesn't have the side effects common in other treatments that only target the pain.

There's no risk of rejection and it can be administered several times.

REGENERATIVE

the regenerative cycle,

ACRS helps properly close

proliferation phases from

INJURY

CYCLE

preventing the

inflammation and

and even chronic.

becoming extended

REGENERATION

REMODELLING

Other cytokines stop the accumulation of new cells and organise them to create healthy tissue

PROLIFERATION



Blood vessels are created to feed the new cells that accumulate around the injured tissue

INFLAMMATION



White blood cells clean the injured area and release cytokines that recruit cells to replace the damaged ones

HAEMOSTASIS

Platelets are activated and release pro-inflammatory cytokines, which call on white blood cells to begin the regeneration process



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Medical center details

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