

Rheumatoid Arthritis

Understand, Prevent, Relieve

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General Presentation

Rheumatoid arthritis is a silent story that settles into the body like a fine rain that never stops falling. It does not strike all at once, but seeps in gently, until it becomes a heavy and persistent companion.

Worldwide, about one in a hundred people is affected. It chooses women more often than men - three times more often - as if their bodies carried a particular vulnerability to this inner fire. It can appear at any age, but prefers the years of maturity, between thirty and fifty, when life is already well underway.

Certain populations seem more vulnerable: Amerindian tribes experience a frequency five times higher, while other peoples in Africa or Asia appear somewhat better protected. Yet everywhere it leaves its mark, everywhere it reminds us that the balance of the body is fragile.

Science has uncovered mysterious links between this disease and certain genes, called HLA. These genes, like invisible keys, sometimes open the door to illness. DR4, DR1, DR10, DR14... names that resonate like secret codes inscribed in the memory of our cells.

Thus begins the story of rheumatoid arthritis: a disease that is not only joint pain, but an enigma of body and mind, a meeting between genetic heritage and the influences of the outside world.



Diagnosis and Symptomatology

Rheumatoid arthritis does not always reveal itself at once. Sometimes it advances in disguise, like a discreet shadow settling into the joints. Diagnosis then becomes a quest, an investigation where every sign matters, every clue sheds light on the path.

The first signal is often **morning stiffness**: fingers that refuse to open, wrists that seem frozen, joints that awaken only after a long hour of patience. Then come the **swellings** - joints red, hot, painful, as if consumed by an inner fire.

The disease favors **symmetry**: what affects one hand, affects the other; what strikes one knee, strikes its twin. It sometimes leaves **nodules under the skin**, small invisible stones that testify to its presence.

Doctors rely on precise criteria to establish the diagnosis:

- Prolonged morning stiffness
- Swelling of at least three joints
- Involvement of the hands
- Symmetry of pain
- Rheumatoid nodules
- Presence of rheumatoid factor in the blood
- Characteristic radiological images

At least four of these signs are required for the verdict. Yet often the disease hides, and these criteria appear only at an advanced stage, when the joints already bear the scars of destruction.

Science therefore seeks subtler clues: specific antibodies visible in the early stages, such as **anti-citrullinated peptides**, true fingerprints of the disease. Or MRI scans, which reveal erosions invisible to standard X-rays.

Thus, the diagnosis of rheumatoid arthritis is a story of patience and vigilance. It requires listening to the body, questioning the blood, scrutinizing the images. For the earlier it is recognized, the sooner its advance can be slowed.



Mechanisms and Pathogenesis

Rheumatoid arthritis is an enigma. It advances like a mist enveloping the joints, and behind this mist lies a complex, still mysterious mechanism. Doctors know it is an **autoimmune disease**: the body, believing it is defending itself, turns against itself.

It all begins with an **immune response**. T lymphocytes, guardians of the immune system, activate like soldiers alerted to a threat. But here, the threat is vague, almost invisible. They attack the synovial and cartilage cells as if they were foreign. This reaction precedes inflammation, which then adds its destructive fire.

Researchers speak of **causal peptides**: tiny fragments of proteins that deceive the immune system. These peptides may come from food or intestinal bacteria. They cross the intestinal barrier, sometimes weakened, and slip into the blood. There, they meet HLA-DR molecules - genetic keys that present peptides to T lymphocytes. And the battle begins.

The synovium, normally thin and discreet, transforms. Under the effect of cytokines and inflammatory mediators, it proliferates, thickens, and becomes an invasive pannus. This pannus is like a parasitic plant that clings and destroys everything in its path: cartilage, bone, ligaments, tendons.

Thus, the mechanism of rheumatoid arthritis is an **inner tragedy**:

- The body believes it is defending itself, but it destroys itself.
- Protective cells become assailants.
- Inflammation, instead of being a weapon of healing, becomes a weapon of ruin.

And yet, behind this chaos, a truth emerges: the disease is not born of chance. It is the fruit of an encounter between our genes, our diet, our microbiota, and the vulnerabilities of our immune system.



Medicinal Treatments

Faced with rheumatoid arthritis, modern medicine deploys its weapons. Yet these weapons are imperfect, sometimes heavy, sometimes uncertain. They do not cure; they relieve, they slow, they attempt to contain the fire.

***Anti-inflammatories and analgesics** are the first companions. They soothe pain, calm the fever of the joints, but do not reach the root of the disease. They are like balms on a deep wound.*

*Then come the **corticosteroids**, powerful but demanding. They reduce inflammation with force, but prolonged use weakens the body: bones more fragile, skin thinner, immune defenses diminished.*

***Disease-modifying treatments** (methotrexate, gold salts, sulfasalazine, hydroxychloroquine) aim to slow progression. They modulate immunity, but at the cost of possible complications: damage to the liver, kidneys, or blood. Each tablet is a promise mingled with risk.*

*In recent decades, **biotherapies** have appeared, particularly TNF α inhibitors such as etanercept or infliximab. These drugs directly target the messengers of inflammation. They have changed the lives of many patients, offering remissions, restored movements, and eased pain. Yet they too carry a shadow: an increased risk of infections or cancers, for TNF α is also a sentinel of our natural defenses.*

Thus, medicinal treatment of rheumatoid arthritis is a walk on a tightrope: between relief and danger, between hope and caution. Physicians proceed with vigilance, adjusting doses, monitoring effects, always seeking to give more life than constraints.

But behind these medicines, one truth remains: they attack the consequences, not the cause. And that is why so many researchers, and so many patients, turn toward other paths - nutrition, the microbiota, lifestyle - to complement this battle.



Role of Nutrition

Nutrition is far more than simple fuel for the body. It is memory, culture, pleasure... but sometimes also a trigger of imbalance. In rheumatoid arthritis, it plays a mysterious, often decisive role.

It is said that some patients, by fasting for a few days, have seen their pain ease. Fasting, like a pause offered to the body, can sometimes calm inflammation. Yet it cannot be a lasting solution: it is a temporary key, a moment of respite.

More often, certain foods seem to rekindle the fire in the joints. Milk, wheat, corn, cereals, fatty meats... all are products that, in some patients, worsen symptoms. And when they are removed, pain recedes, as if the body regains a measure of peace.

Researchers have observed that each patient is sensitive to different foods. But one constant appears: modern cereals, dairy products, and foods that are overcooked or processed often return as culprits.

*Thus, nutrition becomes a therapeutic path. Not a magic wand, but a way of relief. **Exclusion diets**, where a suspect food is removed and then observed, sometimes reveal the hidden enemy. And when it is permanently eliminated, the disease eases, sometimes even disappears.*

It is not a universal rule. Some patients do not react, others find balance elsewhere. But nutrition remains a precious key, because it also acts indirectly: it modifies the intestinal flora, influences the permeability of the small intestine, and shapes the inner environment where the disease arises.

*In rheumatoid arthritis, eating is therefore not a trivial act. It is a choice that can nourish health or fuel pain. And that is why, in our works such as *Cooking to Heal* and the *Family Clinic* booklets, we insist on this simple truth: **the plate is daily medicine.***



Role of Intestinal Bacteria

*In the silence of our entrails lives a teeming world: billions of bacteria, invisible yet essential, that make up what is called the **intestinal microbiota**. They digest, they protect, they converse with our immune system. But sometimes this inner world becomes unbalanced, and certain bacteria turn into accomplices of disease.*

In rheumatoid arthritis, many researchers have suspected the intestine to be the hidden stage of the drama. When the flora changes, when germs proliferate, they can release peptides that cross the intestinal barrier. These foreign fragments, once in the blood, are presented to T lymphocytes as enemies. And immunity, deceived, begins to attack the joints.

Experiments have shown that certain antibiotics, taken orally, can temporarily improve symptoms. Not because they directly heal the joints, but because they reduce the presence of a suspect bacterium in the intestine. It is as if calming the turmoil of the microbiota also soothed the fire in the joints.

Thus, behind rheumatoid arthritis, there may be a story of bacteria. Not all, but some, capable of triggering a chain reaction. The microbiota then becomes an invisible actor, a discreet director of inflammation.

And this idea opens new perspectives: treating RA is not only about addressing the joints, but also about caring for the intestine. Nourishing a balanced flora, protecting the intestinal barrier, choosing a diet that respects this inner world. For sometimes, the key to our joints lies in the belly.

