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ARTHRITIS = Pain, inflammation, and loss of function in a joint.

It can begin at any age. Once it has begun, there is an ongoing cycle of degeneration ('arthrosis'). Today, chondroprotective therapy is at last able to interrupt that cycle and even rejuvenate the joint, especially its cartilage [which covers all bone within a joint, providing a protective interface].

Structures of a "Synovial Joint"

Cartilage, is nourished and protected by joint fluid [synovium] which is produced by, & contained within the joint capsule, ... ALL all these structures need to regain their integrity if 'arthritis' is to improve.

Muscle tone is also important: spasm or weakness in muscles can stiffen or malalign a joint.

Ligaments restrain the joint's movement, assisted by some muscle tendons. If they are stretched or torn the joint becomes loose & moves incorrectly, causing extreme 'wear and tear'.

Triggers of arthritis include:

1. Genetics: The joint may be inherently unstable or badly aligned as with slipping knee-caps, & hip dysplasia. Or the joint cells themselves may be genetically predisposed to early "aging".
2. Injury: perhaps scraped cartilage, a dislocation, or a bone that had fractured into the joint. Many dogs suffer injuries as pups, falling, being trodden on etc, that trigger arthritis later in life. [Treatment of the pup at the time with a good chondroprotectant may off-set that!]
3. Excessive concussion: This is especially important for large-breed pups that play heavily on undeveloped joints; and for any dog overworked when young..
4. Malnutrition, especially of proteins, calcium & micronutrients in pups, & of certain essential fatty acids in mature animals.
5. 'Wear and Tear' & 'Ageing'. The cells of cartilage and bone gradually become less active, & are slower to repair. Chondroprotectants help them!
6. Infection: blood borne [notably "joint-ill" of the very young], or following a penetrating injury

SIGNS of Arthritis can vary:-

for **CATS**, watch their movement. They may move around less, move stiffly, move slowly, move carefully. Their claws get caught in the carpet; they climb and jump less often and clumsily; they over-groom tender parts, under-groom the bits that are hard to reach, such as along their spine.

for **DOGS**, watch their behaviour. They may be reluctant to climb steps or have difficulty in rising, especially in the morning. Some limp. Some lag behind on walks. Some become aggressive and snap or yelp if touched. Others obsessively lick their paws, even when the pain may be elsewhere.

Simple things that may help:

- * A warm, supportive bed, & a coat to keep their back warm [YES even for cats!]
- * Avoid dampness, chills & draughts.
- * Gentle but regular exercise, preferably on flat ground. Swimming is great, but don't let them chill
- * Shed those excess kilos.

Arthritis Therapy:

ALL cases should respond positively to the chondroprotection provided by SLACAS (which are S4) and by Neuroceuticals (available 'over-the-counter').

Surgery, Physiotherapy, &/or Anti-inflammatory therapy is programmed to match the specific case:

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- 1. SURGERY** can sometimes cure: as when a damaged ligament can be strengthened, or a joint realigned (especially for knees, hips and vertebrae). “Spurs” around a joint can sometimes be removed; other joints may be “ankylosed” to minimise painful movement. Complete joint replacement surgery for knees, hips and elbows is now available for dogs.
- 2. PHYSIOTHERAPY.** A suitable regime can be discussed for each patient. Acute cases will require REST and a graded return to exercise.
- 3. NSAIDS = Non-steroidal Anti-Inflammatory Therapy:** (= prescription non-cortisone anti-inflammatory analgesics) These give quick-acting effective relief within hours. They reduce inflammation and muscle spasm, easing pain. By allowing normal joint usage, they improve muscle tone and joint alignment. Increased activity means better circulation, a stronger heart.
Their use does need to be tailored to suit each case; they are prescription therapy, available only after a veterinary examination & on a vet’s recommendation.
Modern veterinary NSAIDS are potent & prepared especially to suit dogs, cats, horses & other species. They rarely cause the side effects reported for older, less safe products. Used correctly, some interact with SLACAS & Neutraceuticals to improve joint integrity
- 4. (SLACAS)** Slow-Acting Chondroprotectants boost the natural repair mechanisms & reverse many of the changes that occur with osteoarthritis or joint injury. They target & activate the very cells within joints that build & repair joint structure
If used early enough SLACAS may block arthritis triggers. Later they help restore strength & smoothness to damaged ligaments & cartilage, re-invigorate the adjacent bone and improve the consistency and volume of joint fluid, replacing that ‘cushion’ that every joint needs.

Initially by weekly injections, for 4 weeks, then single follow-up treatments tailored to suit each case. Improvement is probably felt by pets within days, and becomes obvious to their owners after 3 – 4 weeks. There is less pain, inflammation, stiffness, lameness, less need for NSAIDs or other therapy. SLACAS reinvigorate the cells that are “fed” by neutraceuticals.

- 5. NEUTRACEUTICALS.** such as chondroaminoglycocides [chondroitin] maximise the effect of SLACAS by ‘feeding’ the joint cells, maximising their productivity. Found naturally in healthy joints, their levels fall in diseased ones. Replacement boosts joint metabolism & facilitates repair. This is the body repairing itself, so improvement may be slow, over a period of weeks to months.

Used early, in combination with rational physiotherapy and rest, they may off-set conditions such as hip dysplasia or osteochondrosis. Later they will help restore vitality to disabled joints. Early, they may reduce “spurring” but later, once bony spurs have formed, only surgery can remove them.

These are an “over-the-counter” product, BUT **be careful**, there are lots available and MANY **do not** meet the apparent claims made on their label.

For instance: glucosamine from “green-lipped mussel extract” has uncertain potency, and be available in uncertain amounts. Ingredients such as chondroitin may be inactivated by heat during manufacture, or by interaction with other ingredients in the product.

Glucosamine is less effective in dogs than in people: dogs need chondroitin.

Avoid N-acetyl glucosamine, which is hard to digest, look for the more absorbable hydrochloride or sulfate forms.

We recommend and stock:

JOINT GUARD: a very reliable powdered supplement that tells us **exactly** what it contains. Available as a powdered food additive for dogs, cats & horses; and as daily liver-flavoured “treats” for dogs.

4-CYTE: a new line, has, in recent and well documented trials, been shown to actually encourage replication of the joint chondrocytes: so more joint cells to do the work!

Our MATURE & SENIOR dog & cat foods already contain these products, in balanced proportions.

- 6. OTHER Non-Prescription products:**

Omega 3 Fatty Acids are joint cleansers, reducing painful inflammation (stocked here as **MEGADERM** & contained in **Hill’s SENIOR** and the remarkable **JD** foods for both dogs and cats)

Free Radical Scavengers, help remove harmful debris and by-products from damaged joints (ask for **DOMOSO** Roll-on or lotion especially useful with a focused, acute joint pain)