Golden Vet Physio
Canine & Equine Physiotherapy

Canine Elbow Dysplasia: An Informative Guide

What is Elbow Dysplasia?

Canine Elbow Dysplasia (ED) is a developmental orthopedic disease complex involving malformation or abnormal growth of the bones forming the elbow joint (humerus, radius, ulna).

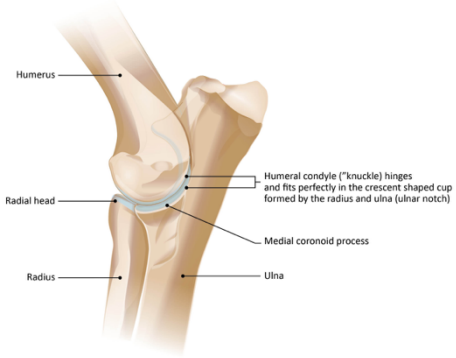
ED leads to joint incongruity, abnormal joint loading, and eventual degenerative joint disease (DJD) or osteoarthritis.

Components of Elbow Dysplasia

ED commonly involves one or more of the following conditions:

1. **Fragmented Medial Coronoid Process (FMCP) –** Most common
2. **Ununited Anconeal Process (UAP)**
3. **Osteochondritis Dissecans (OCD)** of the humeral trochlea
4. **Elbow Incongruity –** Abnormal fit of the joint surfaces

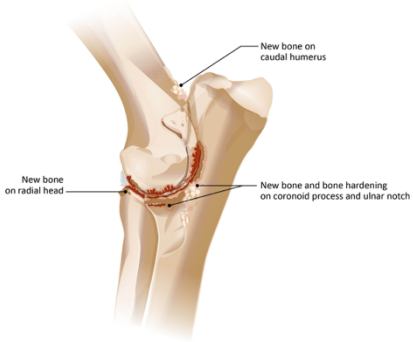
These conditions result in cartilage damage, pain, and joint instability.



Normal extended elbow joint "hinge joint"

Clinical Signs and Impact on the Dog

- Forelimb lameness (often bilateral)
- Stiffness, especially after rest
- Reduced elbow range of motion (extension/flexion)
- Pain on manipulation (hyperextension or supination)
- Muscle atrophy in the shoulder and antebrachial muscles
- Progressive osteoarthritis and reduced quality of life



Deformed (dysplastic) elbow joint (extended view) with secondary bone damage and inflammation (painful osteoarthritis)

Predisposing Factors

- **Genetic inheritance** is the primary factor
- Rapid growth and overnutrition in large and giant breed dogs (e.g., Labradors, German Shepherds, Rottweilers)
- Incongruent growth rates between the radius and ulna

Surgical Treatment Options

Surgery is often considered for moderate to severe cases or when conservative management fails:

1. **Arthroscopy**
   - Minimally invasive; used for fragment removal (e.g., FMCP) and joint assessment
2. **Ulnar Osteotomy or Ostectomy**
   - Corrects joint incongruity, especially in growing dogs
3. **Subtotal Coronoidectomy**
   - Removal of diseased medial coronoid process
4. **Sliding Humeral Osteotomy (SHO)**
   - Alters joint loading in advanced cases
5. **Total Elbow Replacement**

Tel: 07772 369962 / Email: Olivia@goldenvetphysio.co.uk / Website: www.goldenvetphysio.co.uk

- Rare; used in advanced end-stage elbow OA

Role of the Veterinary Physiotherapist

Rehabilitation is essential both pre- and post-operatively, and as part of long-term conservative management.

Pre-operative care:

- Reduce inflammation
- Maintain joint range and muscle condition
- Prepare the dog for post-op recovery

Post-operative priorities:

1. **Pain and inflammation management**
   - Cryotherapy, NSAIDs, laser therapy/PEMF
2. **Restoration of joint mobility**
   - PROM, gentle stretching, massage
3. **Muscle strengthening and coordination**
   - Gradual weight-bearing
   - Resistance and proprioceptive exercises
4. **Gait training**
   - Focus on symmetrical, correct limb loading

Rehabilitation Phases and Goals

Phase	Timeframe	Focus
Acute	0–2 weeks	Pain control, PROM, limb use encouragement
Subacute	2–6 weeks	Light strengthening, neuromuscular stimulation
Functional	6–12 weeks	Advanced strengthening, balance, coordination
Maintenance	12+ weeks	Lifestyle management, OA care, activity modification

Key Physiotherapy Objectives

- Improve **joint stability and range of motion**
- Rebuild **forelimb strength** and **muscle symmetry**
- Address **compensatory changes** (spinal tension, opposite limbs)
- Assist with **weight management and exercise planning**
- Enhance **long-term comfort and mobility**

A multidisciplinary approach with orthopaedic input and dedicated physiotherapy improves outcomes in dogs with elbow dysplasia — especially when implemented early.