



**Differential
Diagnosis
&
Sieveing
Methods**



Sieving Methods

OSTEOPATHIC SIEVE

Pathological Processes

	Congenital	Vascular	Neoplastic	Inflammatory	Autoimmune	Metabolic	Traumatic	Functional	Degenerative	Infective	Referred
Skin											
Fascia											
Muscle											
Synovial Sheath											
Tendon											
Ligament											
Disc											
Bone											
Joint Capsule											
Joint Cartilage											
Blood Vessel											
Viscus											
Nerve											

- First described by Ms Audrey Smith between 1968 & 1973 (6 papers published in British Osteopathic Journal).
- Initially designed as 2 dimensional framework it later evolved into a 5 dimensional framework which now forms the basis of osteopathic differential diagnosis
 1. Pathological Processes
 2. Tissue types
 3. Identifying categories
 4. Inter-relatedness
 5. Palpation

Source: Science In The Art Of Osteopathy, Chapter 10, Page 288

Prioritising Sieve

Location \ PMI

Neurological

Onset

Progression

Daily Pattern

Pain Description

Aggravating Factors

Relieving Factors

DD List

	Location \ PMI	Neurological	Onset	Progression	Daily Pattern	Pain Description	Aggravating Factors	Relieving Factors


How to use:

Brainstorm in the first instance, put down everything you can think of that is relevant to the information you've gathered.....

Then tick the appropriate box in terms of what the information/evidence is telling you within the history

When finished the BALANCE OF EVIDENCE (ie. The most ticks becomes your most likely diagnosis and then in order of priority each piece of DD falls into place based on the balance of evidence (how many ticks) it's that simple

Then learn to do it during your history interview.....



Regional Differential Diagnosis

DD ANKLE/FOOT

TRAUMATIC

Ligamentous tear/rupture/sprains
Muscle tear/rupture/strain
#/ dislocation
March # (2/3 neck of met)
Pilots #
Laxity
Haglan's Deformity

INFLAMMATORY

RA/OA/Bursitis
Gout

CONGENITAL

Polydactylysm (extra digits)
Syndactylysm (fused digits)
Vertical Talus
Forefoot adductus
Pes Palnus/Cavus (CVA)
Talipes equinovarus

METABOLIC

DM (Charcot's Jts)
Crystal Deposition
Osteoporosis

IATROGENIC

Surgery
Immobilisation

FUNCTIONAL/MECHANICAL

RSI
Bursitis
Somatic dysfunction
Osteocondritis Dissecans
Osteocondritis
(Sever's (calc), Friberg's (3 met)
Loose bodies (OA, #,OD,)
Synovial Chondromatosis
Bursitis



NEUROLOGICAL

Neurovascular bundle compression
Space occupying lesions
Tarsal Tunel Syndrome
Neuritis
Foot Drop
Charcot Marie Tooth (Pes Cavus)
Freidrick's ataxia (musculodystrophy)
Paralytic Flat Foot
Spastic Flat Foot
Polio
Neuropathy
Morton's neuroma

INFECTIVE

Pyogenic
TB
Osteomyelitis
Rheumatic fever

NEOPLASTIC

Primary bone (osteosarcoma)
Benign bone tumours
Soft tissue (uncommon 1%)
Metastatic

DEGENERATIVE

OA/RA
Stills disease
Psoratic arthritis
Reiters (Fluffy heel spurs)
AS (achiles tendonitis, plantar fasciitis,
sausage digits)

VASCULAR

Occulsive acute/chronic
(embolic/vasospastic)
Raynaud's, Vasculitis, VV,
Varicose Eczema

TRAUMATIC

Muscle strain
Patella/femur/tib/fib
Dislocation
Rupture co-lats lgts./X lgts./sprain
Avulsion below/thru/above
Patella
Contusions
Meniscal tears
- bucket handle
- peduncalated

Recurrent dislocating patella

FUNCTIONAL/MECHANICAL

RSI
Osgood Schlatters disease
LLI leading
Bursitis Pre/supra pat./pes anserine
Somatic dysfunction

REFERRED

OA hip
Shin splints
Neurological
Pelvis/foot/ankle

DEGENERATIVE

OA/RA
Ankylosing Spondylitis
Retro patella wear
Bucket handle tear
Bakers cyst
Discoid lateral meniscus
Loose bodies (OA 1-10, chip # 1-3)
Synovial chondromatosis (1-500)

INFLAMMATORY

RA/AS/Reiters
Bursitis
Arthritis ass with GIT disturbance
SLE
Gout

METABOLIC

Vit C/D deficiency
Rickett's
Hyperparathyroidism

KNEE

NEUROLOGICAL

Neurovascular bundle compression
Compartment syndrome
L234 somatic dysfunction
Charcot joints (tabies dorsalis)
Space occupying lesions
Neuroma

IATROGENIC

Surgery
- arthroscopy
- replacement
Stabilisation
Debridement

CONGENITAL

Flabella
Genu Varum (bow legs)
Genu Valgus (knock knee)
Osteogenesis imperfecta
Daphysial aclasis
Absent patella

INFECTIVE

Rheumatic Fever
Pyogenic Arthritis
TB
Osteomyelitis (acute/chronic)
Herpes

NEOPLASTIC

Primary bone (osteosarcoma)
Soft tissue (uncommon 1%)
Metastatic
Ewings Tumour- Shaft - chemo/surgery
(onion peel appearance)
Benign—giant cell tumour (femur young)

VASCULAR

Occulsive acute/chronic (DVT)
(embolic/vasospastic/atherosclerotic)
Haematoma
Osteochondritis desicans
Pellegrini-Steida disease

DD HIP PAIN

TRAUMATIC

Femur/acetabulum/head
#/ dislocation head of femur
pubic ramus
Dislocated pubis symphysis
Pelvic floor tears/episiotomys
Sliped upper femoral epiphysis

FUNCTIONAL/MECHANICAL

RSI
LLI leading to pelvic obliquity
Bursitis
Slipped epiphysis

DEGENERATIVE

OA/RA
Perthes disease
Pyogenic arthritis
Intermittant claudication
Padgets

INFLAMMATORY

RA/OA
Bursitis
Irriatable hip (synovitis)

METABOLIC

Gouty arthritis (uric acid)
Pseudogout (calcium pyrophosphate)
Ricketts
Vit C deficiency



NEUROLOGICAL

Neurovascular bundle compression
True piriformis syndrome
Referred Discus

IATROGENIC

Osteotomy
Salters
Pembertons pericapsular
Wainrights shelf acetabuloplasty
Chairi's pelvic displacement
Joint replacment

CONGENITAL

Conigenital dislocation of hip
Coxa vara
Osteogenesis Imperefecta

INFECTIVE

Tuberculous arthritis
Tuberculosis of trochanteric bursa
Arthritis ass with GIT disturbance
Pyogenic
Osteomyelitis

NEOPLASTIC

Primary bone (osteosarcoma)
Soft tissue (uncommon 1%)
Metastatic

VASCULAR

Occulsive acute/chronic
(embolic/vasospastic/atherosclerotic)
Phlebitis
Lymphadenopathy

TRAUMATIC

vert body/pedicle/TP
#/ dislocation anterior slip
Retrolsthesis
Prolapse intervertebral disc
Ligamentus tear/rupture/sprain
Muscle tear/rupture/strain
Vert body prolapse
Coccydynia

FUNCTIONAL/MECHANICAL

RSI
LLI leading to facet jt. disease
Bursitis (psoas)
Somatic dysfunction
Schermans/scoliosis
Static spinal mechanics

DEGENERATIVE

OA
Spondylolisthesis
Spondylosis
Degenerative disc disease
Spinal Stenosis

INFLAMMATORY

RA/OA/AS/Reiters
Bursitis
Irritable hip (synovitis)

METABOLIC

Vit C/D deficiency
Osteoporosis

LOW BACK

NEUROLOGICAL

Neurovascular bundle compression
(discus/bony/muscular)
Space occupying lesions

IATROGENIC

Disc surgery
Stabilisation
Laminectomy
Scelerotics
Fusions

CONGENITAL

Fusion L5/S1 (sacralised l5)
TP/innominate
Spina bifida
Paras articularis defect
Hemivertebra/Wedging (Calve's)

INFECTIVE

Tuberculous Spondylitis (Pott's)
Arthritis ass with GIT disturbance
Pyogenic
Discitis
Calve's disease (2-10yrs)

NEOPLASTIC

Primary bone (osteosarcoma)
Soft tissue (uncommon 1%)
Metastatic

NEOPLASTIC

Knee/knee/foot/ankle/T. Spine

VASCULAR

Occulsive acute/chronic
(embolic/vasospastic/atherosclerotic)
AAA

TRAUMATIC

Ligamentus tear/rupture
Muscle tear/rupture/sprain
Golfers/Tennis Elbow
#Humerus/Radius/Ulna
Carpels/fingers

FUNCTIONAL/MECHANICAL

RSI
Bursitis
Somatic dysfunction
Bursitis

DEGENERATIVE

OA/RA
Osteoporosis
Loose bodies (OA, #,OD,)

INFLAMMATORY

RA/OA/Bursitis
Tenosynovitis - De Quervians

METABOLIC

Vit C/D deficiency
Synovial Chondromatosis

ELBOW/WRIST/HAND

NEUROLOGICAL

Neurovascular bundle compression
(discus/bony/muscular)
Space occupying lesions
Carpel Tunell
Neurtitis (ulna/radial N.)

IATROGENIC

Surgery

CONGENITAL

Absent/Extra digits
Dupuytern's contracture
Cubitus valgus/varus
Medelungs Deformity

INFECTIVE

Arthritis ass with GIT disturbance
Pyogenic
TB
Osteomyelitis

NEOPLASTIC

Primary bone (osteosarcoma)
Benign bone tumours
Soft tissue (uncommon 1%)
Metastatic

VASCULAR

Occulsive acute/chronic
(embolic/vasospastic)
Volkman's Ischaemic Contracture
Malunion scaphoid
Osteocondritis Dissecans
Keinbocks Disease

DD Thoracic Spine

TRAUMATIC

METABOLIC

Congenital

FUNCTIONAL

INFLAMMATORY

INFECTIVE

THORACIC SPINE

VASCULAR

NEOPLASTIC

DEGENERATIVE

DD SHOULDER PAIN

TRAUMATIC

Rupture biceps lh/transverse lgt.
clavicle, humerus, scapulae
A/C & CC lgt.
Ruptured rotator cuff
Recurrent dislocation
Fixed flexion deformity
Long Thoracic N palsy
A/C subluxation/dislocation

INFLAMMATORY

RA
Gout
Biceps lh tendonitis
Rotator cuff tendonitis
Brachial plexitis
PMR
Bursitis
SLE
Arthritis ass with GIT disturbance

CONGENITAL

Klippel-feil syndrome
Sprengels deformity

FUNCTIONAL

RSI
Altered structure
Bursitis
Somatic dysfunction C.Sp/T. Sp/Rib

SHOULDER

NEUROLOGICAL

Peripheral n. palsy
Discus
Foramina (spondylosis)
Extra medullary tumours
Neurovascular bundle compression

NEOPLASTIC

Bone
Soft tissue
Pancoast (apical lung)
Adenitis
Syringomyelia
Intramedullary tumours

DEGENERATIVE

Tendonitis
Cuff tears partial/complete
OA

REFERRED

C. Sp
Elbow
Visceral

VASCULAR

Occulsive acute/chronic
(embolic/vasospastic/atherosclerotic)
Phlebitis
Lymphadema
Calcification rotator cuff

DD CERVICAL SPINE

TRAUMATIC

METABOLIC

CONGENITAL

FUNCTIONAL

INFLAMMATORY

INFECTIVE

CERVICAL SPINE

DEGENERATIVE

VASCULAR

NEOPLASTIC

TRAUMATIC

CSF Shunts
Blows to head
CVA's
TIA's
Epidurals/myelograms

RTA's - concussion, whiplash

Birth trauma

FUNCTIONAL

Visual impairment
Occupational
- Postural, bad work ergonomics
- RSI
Previous trauma/ loss of motion
Muscle spasm
Somatic Dysfunction C. Sp./TMJ/intercranial
Dehydration
Depression
PMT
Tension/Stress
Drugs
Fatigue/lack of sleep

DEGENERATIVE

OA
Degenerative disc disease
Neurological disease
Elevated BP

METABOLIC

Elevated BP
Vit A toxicity
Anorexia/Buliemia
Padget's
Acromegaly
Excesive alcohol/drugs

INFLAMMATORY

RA
PMR
Vasculitis

HEADACHES

VASCULAR

CVA's
- Sub dural haematoma
- Sub arachnoid haematoma
- intracerebal haemorrhage
- Thrombo-embolic
Hypertension
Anemia
Migrane
Aneurysm

Congenital

Apical Lgt. instability (Downs)
Abnormal Foramen Magnum
Vertebral Abnormalities
Vascular Anomilies
Increased CSF production
Sutural fussion
Budd-chiari malformation

INFECTIVE

Viral/Bacterial toxic headache
Trigeminal neuralgia
Bell's Palsy
Meningitis
Otitis externa/media
Choelesteatoma
Mastoiditis
Sinusitis
Dental absces
TMJ discitis

NEOPLASTIC

Space occupying lessions
Pitutary tumours
Cranial nerve tumours
Meningeal tumours
Metastatic tumours
Bone cancer
Multiple Myloma