

# Abnormal Movements:

## Hypokinetic

- 1) Parkinsonism
- 2) Catatonia

Usually due to  
Defect in the  
Basal Ganglia

## Hyperkinetic

- 1) Tremor
- 2) Chorea
- 3) Tick
- 4) Myoclonus
- 5) Dystonia
- 6) Others
- 7) Athetosis

1) Hypokinetic → Slowness of movement.

1) Parkinsonism

- Akinesia, Rigidity, Tremor, loss of Postural reflexes,

Eg - Idiopathic Parkinson's disease, Lambert.

\* Eaton Myarthritic syndrome.

2) Catatonia

- Mutism, Sustained posturing and waxy flexibility.

Eg → Usually psychiatric, if neurological most commonly vascular origin.

2) Hyperkinetic → Excess involuntary movement.

1) Tremor

- Involuntary, oscillatory movements of a part affected resulting from a alternating contraction and relaxations of the muscles.

- Body Part, Position, Frequency, Amplitude should be always considered.

|                    | Body Part                                             | Position                      | Frequency | Amplitude       | Character                                 |
|--------------------|-------------------------------------------------------|-------------------------------|-----------|-----------------|-------------------------------------------|
| Physiological      | Both Arms > legs.                                     | Posture, Movement             | ↑         | Small           | Anxiety, Emotion, Caffeine, Hyperthyroid. |
| Parkinsonism       | Unilateral or Asymmetrical Arm > legs, jaw never head | Rust, Movement                | ↓         | Moderate        | Pill-rolling thumb and index finger.      |
| Essential tremor   | Bilateral arm, head                                   | Movement                      | ↑         | Low to moderate | Family history, Responds to alcohol.      |
| Intentional tremor |                                                       | Absent at rest and ↑ movement |           |                 | Cerebellum                                |
| Dystonic           | Head, arm, legs.                                      | Posture                       | Variable  | variable        | other features of Dystonia                |

## 2) Hyperkinetic:

### 1) Chorea

- Jerky, Brief, purposeless involuntary movements affecting different areas.
- They are due to defect in the caudate nucleus - and treatment of Parkinsonism, or with Levodopa.
- occur with athetosis.

### Causes:

#### 1) Hereditary:

- Huntington's disease
- Wilson's disease
- Neuroleptanthocytosis.

#### 2) Cerebral birth injury.

3) Cerebral Tumors

4) "Drugs" → Levodopa, Antiepileptics,

Antipsychotics.

5) Metabolic: Thyroid, parathyroid, glucose,  
Sodium, calcium, magnesium balance.

- Pregnancy

6) Autoimmune → Post streptococcal (Sydenham's  
Chorea), SLE, Antiphospholip.  
antibody syndrome, Autoimmune  
encephalitis.

7) Lesions of caudate.

- Vascular, Demyelination, Brain tumor.

8) Athetosis

- Slow, writhing movements of the limb,  
often combined with chorea.

9) Ballism

- Dramatic form of chorea, forming  
violent flinging movements of one limb  
(monoballism) or one side of the body  
(Hemiballism)  
- lesion in the contralateral subthalamic  
nucleus usually due to stroke.

10) Dystonia

- Sustained involuntary muscle contractions  
causing abnormal postures or movements.  
- Eg. Torticollis.  
- Some Dystonia occurs only with specific  
tasks like writer's Cramp or after  
occupational cramps.

## Myoclonus

- Brief, isolated, random jerks of muscle groups.
- Physiological at the onset of sleep.
- May occur in some forms of epilepsy, and negative myoclonus (asthenia) is liver disease.

## Tic

- Stereotyped repetitive movements such as blinking, winking, head shaking or shoulder jerking.
- Unlike dyskinesias, patient may be able to control it, but only for sometime.