

## Disorders of Perception

### A. Auditory Hallucinations

Most common form in 1<sup>o</sup> psychiatric disorders; occur in schizophrenia, delusional disorder, mania, depression, decompensated borderline and narcissistic states; PTSD “traumatic hallucinosis”. Can also occur post-stroke, TBI, HIV, AD, VaD, bvFTD (esp. associated with C9orf72), LBD, temporal lobe epilepsy, autoimmune limbic encephalitis, delirium, alcohol withdrawal, meth intoxication etc.

1. **Command** – most commonly malingered; if genuine may confer ↑ risk of suicide/violence
2. **Though Echo** – *Gedankenlautwerden* and *echo de la pensée*; FRS of schizophrenia
3. **Voices Giving Running Commentary** - FRS of schizophrenia
4. **Voices Heard Arguing** – most common auditory hallucination; FRS of schizophrenia
5. **Musical** – occur in deafness, TLE, poststroke, w/ tumors, 1<sup>o</sup> psychiatric disorder (schizophrenia, mania), drug reaction

AD = Alzheimer’s Disease

bvFTD = behavioral variant

Frontotemporal Dementia

CJD = Creutzfeldt-Jakob Disease

FRS = first rank symptom

LBD = Lewy Body Dementia

ORS = olfactory reference syndrome

PCA = Posterior Cortical Atrophy

PDD = Parkinson’s Disease Dementia

TLE = Temporal Lobe Epilepsy

VaD = Vascular Dementia

### B. Olfactory and Gustatory Hallucinations

2<sup>nd</sup> commonest form in 1<sup>o</sup> psychiatric disorders

1. Olfactory hallucinations (**phantosmia**) occur in schizophrenia, psychotic MDD, mania, delusional disorder. Also consider TLE, tumors, sinusitis, TBI, Parkinson’s (can develop in context of loss of smell). r/o **taijin kyofusho** (ORS)
2. Gustatory hallucinations occur in schizophrenia, psychotic MDD, mania, delusional disorder. Also consider seizures. Often go hand in hand with olfactory hallucinations. Poorly studied.

### C. Tactile (Haptic) Hallucinations

Can occur in delusional disorder (e.g. **Ekbom syndrome**), cocaine and amphetamine-induced psychosis, opioid use disorder, schizophrenia, MDD, bipolar disorder. Also consider delirium, VaD, AD, complex partial seizures, MS. Must distinguish from somatic delusions, somatic passivity delusions which may co-exist.

1. **Thermic** – perceptions of hot and cold
2. **Haptic** – perceptions of touch (including perceptions of formication/infestation)
3. **Hygric** – perception of fluid
4. **Kinaesthetic** – perceptions in muscles/joints
5. **Visceral** – perceptions of inner organs

### D. Visual Hallucinations

More commonly associated with “organic” pathology; can occur in psychotic MDD, mania, schizophrenia, acute and transient psychotic disorders, as well as decompensated borderline and narcissistic states; PTSD “traumatic hallucinosis”. Otherwise consider delirium, LBD, PDD, AD, VaD, bvFTD, CJD, PCA, TBI, HIV, **Charles Bonnet Syndrome**, alcohol withdrawal, **peduncular hallucinosis**, **migraine w/ visual aura**, occipital epilepsies, **hallucinogen persisting perceptual disorder**, **Ganser syndrome** (hallucinations, clouding of consciousness, **approximate answers**, conversion symptoms)

1. Simple – flashing lights, colors
2. Complex – people, animals, liliputian
3. **Pseudohallucinations** - extremely vivid ornate hallucinations may suggest hysterical conversion

### E. Other Hallucinations

1. **Hypnagogic** and **hypnopompic** – hallucinations on falling asleep/waking – normal v. **narcolepsy**
2. **Reflex** - hallucination triggered by stimulus in different sensory modality
3. **Functional** – hallucination triggered by stimulus in same sensory modality
4. **Extracampine** – hallucination emanating from out of sensory field