The Vagus Project
Neuroscience Foundation

CREUTZFELDT-JAKOB DISEASE

CREUTZFELDT-JAKOB'S (CJD) IS A NEURODEGENERATIVE DISORDER WHICH HAS A RAPID ONSET AND IS FATAL WITHIN ONE YEAR. CJD IS A HUMAN PRION DISEASE.

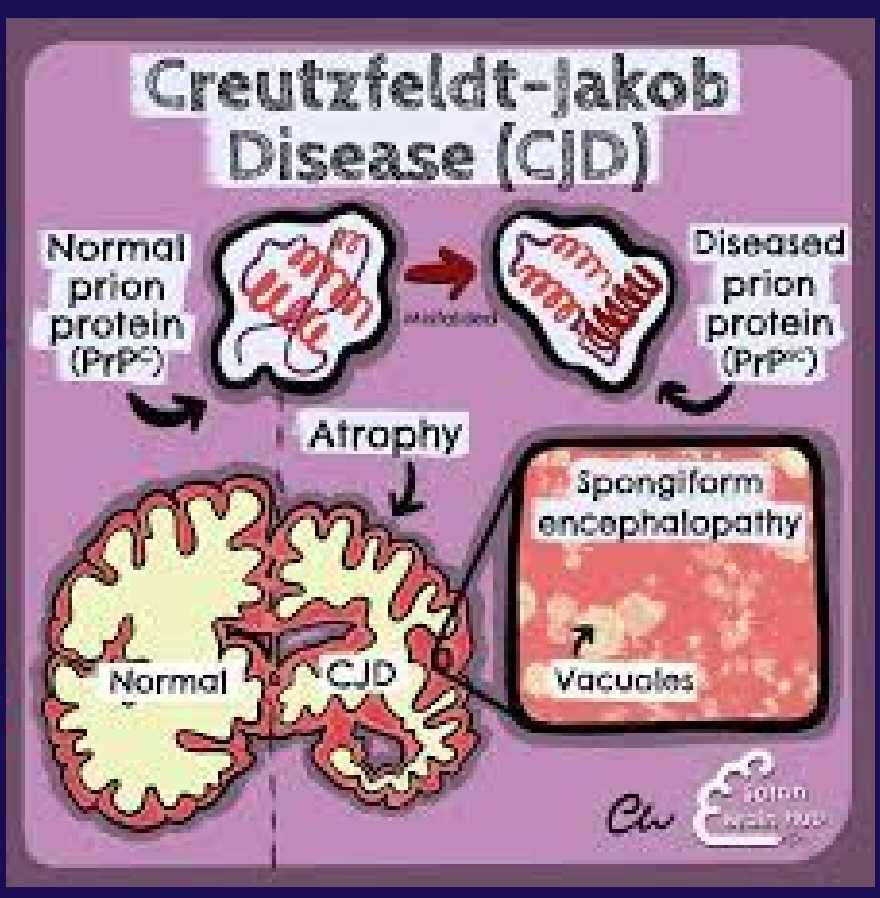
85% of patients contract the disease with no specific pattern of transmission

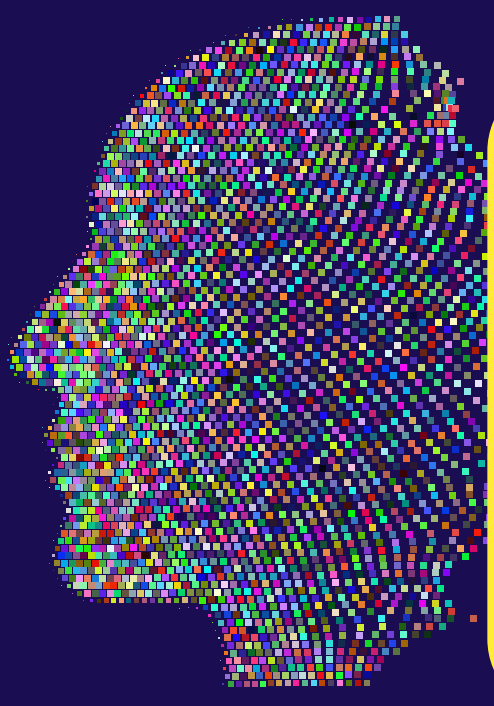
5-15% develop the disease due to inherited mutations in the prion gene (ex. Grestmann-Straussler-Scheinker syndrome & familial insomnia)

SYMPTOMS

- Personality changes
- Slurred speech
- Progressive loss of mobility and brain function
- Loss of balance
- Memory deterioration

NB: CJD causes individuals to become immunocompromised, hence death usually follows within a year of presenting with symptoms.





THERE ARE 4 MAIN TYPES OF CJD:
SPORADIC CJD - MOST COMMON; PRECISE CAUSE UNCLEAR, HOWEVER STUDIES SHOW A MISFOLDING OF A REGULAR BRAIN PROTEIN, RESULTING IN THE FORMATION OF A PRION.

VARIANT CJD- CAUSED FROM CONSUMING COWS WITH BOVINE SPONGIFORM ENCEPHALOPATHY(MAD COW DISEASE); THE PRION WHICH CAUSES VARIANT CJD CAN ALSO BE TRANSMITTED VIA BLOOD TRANSFUSIONS.

IATROGENIC CJD -INFECTION ACCIDENTALLY SPREAD VIA SURGICAL TREATMENT.

FAMILIAL/INHERITED CJD - RARE GENETIC CONDITION WHERE CJD IS TRIGGERED VIA INHERITING THE PRION MUTATED PROTEIN GENE FROM THEIR PARENTS; SYMPTOMS USUALLY PRESENT IN INDIVIDUALS IN THEIR EARLY 50'S.

TREATMENT

CJD has no cure, hence treatment is administered with the intent of lessening the discomfort f the symptom adversely affecting the patient.
Antidepressants may be prescribed to help with anxiety and depression, and some individuals may require nursing care depending on the stage of disease progression.

DID YOU KNOW!

Iatrogenic CJD can occur if instruments used during brain surgery on an infected patient are not properly sterilized between procedures.

REFERENCES:
https://www.cdc.gov/prions/cjd/index.html https://www.nhs.uk/conditions/creutzfeldt-jakob-disease-cjd/ https://www.google.com/url?sa=i&url=https%3A%2F%2Fwww.facebook.com%2FSotonBrainHub%2Fposts%2Fcreutzfeldt-jakob-disease-cjd-is-a-very-rare-and-fatal-degenerative-brain-disord%2F1425238197659593%2F&psig=AOvVaw3JpqW-pSX17VTi14v9w704&ust=1685122913954000&source=images&cd=vfe&ved=0CBEQjRxqFwoTCPiu8qb4kP8CFQAAAAAdAAAAABAE

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