

Prions and Prion Diseases Microsite Outline

My microsite will describe prion diseases. This will be an informational site detailing its biology, causes/transmission/replication, and two examples of prion diseases—bovine spongiform encephalopathy (in cattle) and Creutzfeldt-Jakob disease (in humans)—with photos and descriptions of their symptoms. I will either organize all the information in one scrollable page or in a site with a home-page containing the overview and all other sections in a nav bar.

Wikipedia site: <https://en.wikipedia.org/wiki/Prion>

Organization:

i. Overview

- a. definition and description
- b. biological classification
- c. listing of various prion illnesses
- d. what makes prions so unique compared to illnesses caused by viruses or bacteria, or even other illness with non-living causes like cancer or autoimmune diseases (breaking central dogma of biology: infectious, contagious proteins with no DNA or RNA or other motive to spread)
 - 1. comparison to Alzheimer's and Parkinson's
- e. resistance to destruction

ii. Structure and difference between healthy protein (PrP^C) and prion (PrP^{Sc})

- a. structures
- b. how a prion replicates

iii. CJD and BSE

- a. overview
- b. signs and symptoms
- c. transmission
 - 1. cannibalism, harvested human brain products, BSE, reused surgical tools
- d. diagnosis