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# Early Diagnosis of Celiac Disease in Pediatric Patients

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## Introduction/Background:

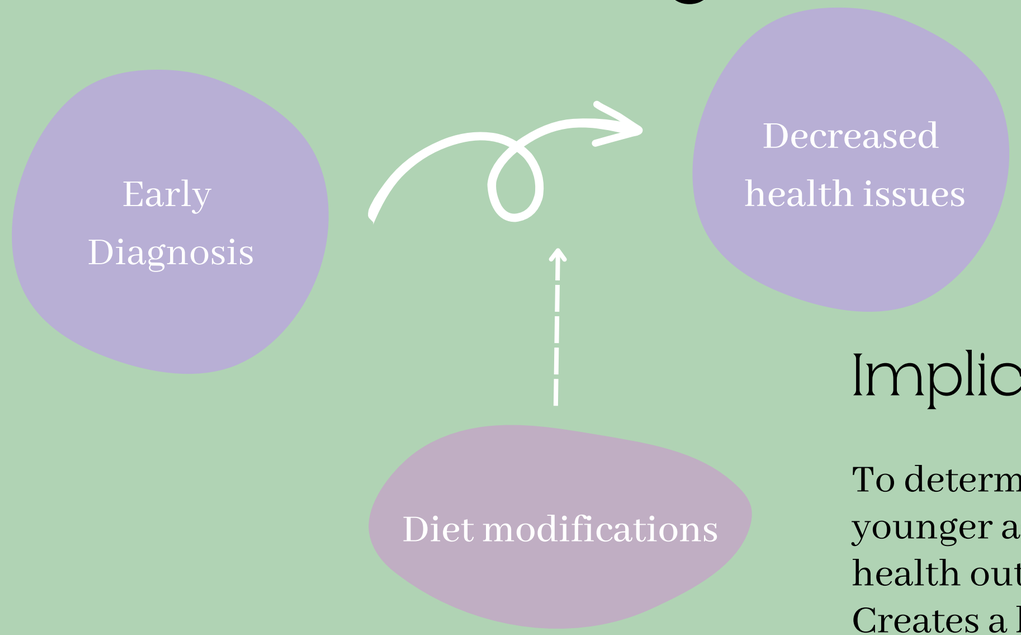
- Celiac disease is defined as an autoimmune disease triggered ingestion of gluten products.
- Gluten is the “alcohol-soluble protein” in foods such as cereals, bread, and pasta
  - ex: barley, wheat, rye, etc
- Celiac disease has become one of the most common autoimmune diseases, but most of the time remains undetected with the absence of testing and poor disease recognition.
- Agricultural advances may correlate to the increase in Celiac disease diagnosis in the last few years.
- can lead to more autoimmune disorders
  - ex: Type 1 diabetes, MS, anemia, infertility/miscarriage, osteoporosis

## Signs/Symptoms::

- GI: bloating, diarrhea, constipation, gas, N/V, pain in abdomen
- For children: delayed puberty, damage to teeth, failure to thrive, mood changes, slowed development, weight loss

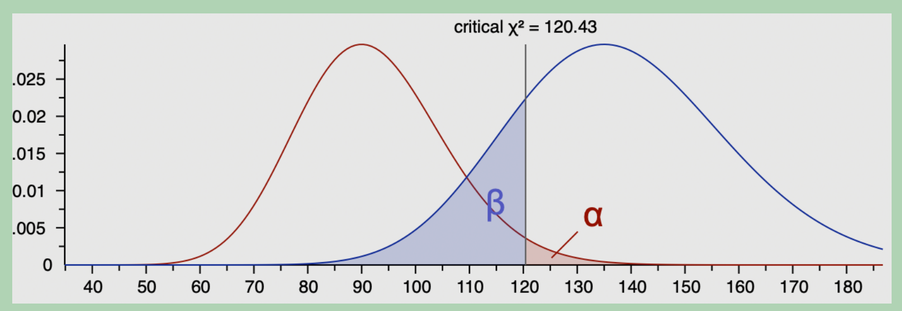
## Hypothesis:

Early diagnosis at around 5 years old will decrease long term health outcomes with addition of diet modifications.




## Research question:

Does early diagnosis at a young age help long term health outcomes?




## Method:

- Cohort study with 2 groups
- Will collect data from 186 patients, ages 5-15 years old, from UCSF outpatient pediatric clinics with Celiac disease. Sample determined through G-power(G-power above)
- Group 1: diet modification, at 5 years old after diagnosis
- Group 2: diet modification, at 15 years old after diagnosis
- Will access health outcomes of these patients and whether strict diet modifications made a difference 10 years from start of study

## Implication for practice:

To determine whether early diagnosis at a younger age will decrease the risk of adverse health outcomes associated with Celiac disease. Creates a better quality of life for people with Celiac disease.

## Anticipated Results:

Group 1 will have a greater health outcome.

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