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Gastroenterology

- Celiac Disease

# Gastroenterology



- Organ specific

- Hashimoto's Thyroiditis
- **Celiac disease--**  
Pernicious anemia
- Goodpasture's syndrome
- AI Liver Diseases

- Systemic

- Rheumatoid arthritis
- Systemic Lupus erythematoses (SLE)
- Antiphospholipid syndrome (APS)
- Wegeners's granulomatosis

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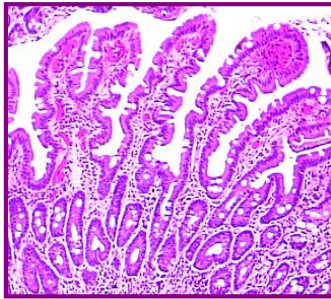
- Celiac Disease

- Celiac disease is an autoimmune condition
- Occurs in **genetically susceptible** individuals
- High **association** with HLA-DQ2 and/or DQ8
- Both the environmental trigger (**gluten**) and the **autoantigen** (tissue Transglutaminase) are known
- **Gluten-free** diet leads to a complete resolution of the disease

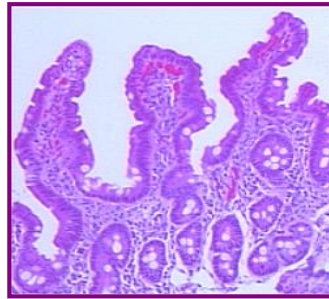
# Gastroenterology



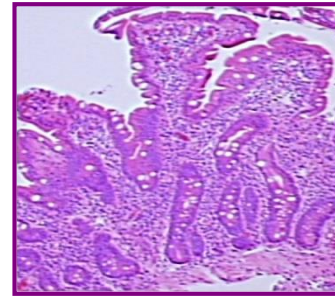
## Histological Features



Normal 0



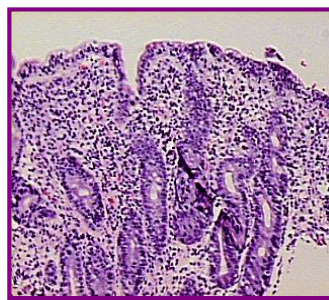
Infiltrative 1



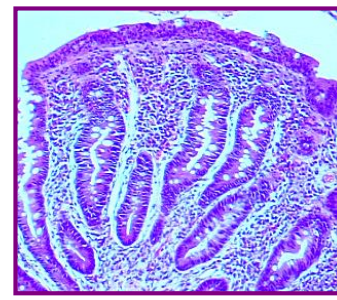
Hyperplastic 2



Partial atrophy 3a



Subtotal atrophy 3b



Total atrophy 3c

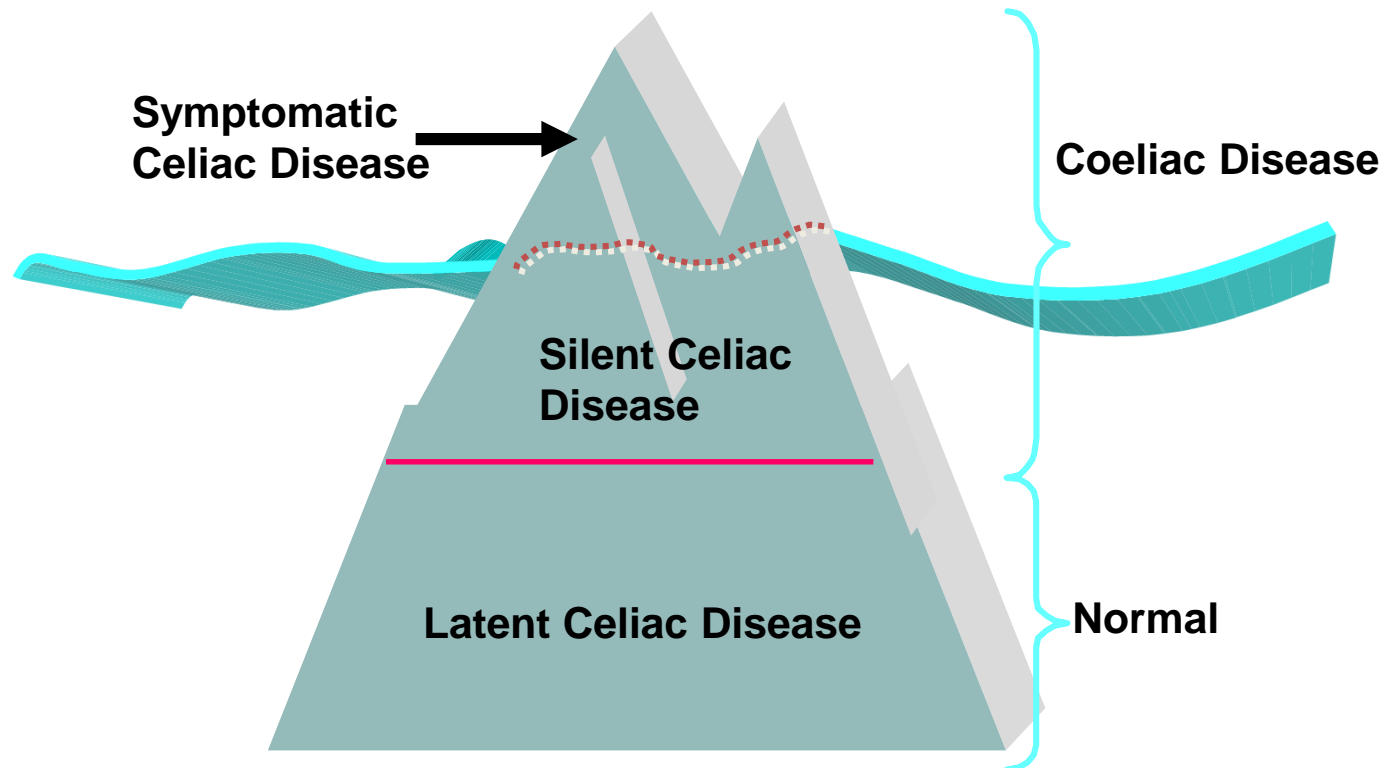
*Horvath K. Recent Advances in Pediatrics, 2002.*

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- **Coeliac Disease**

- An Autoimmune Disease with one of **the highest** prevalences !



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## •Diagnosis of Coeliac Disease

- as described by ESPGAN Guidelines, 1990

- (European Society of Paediatric Gastroenterology and Nutrition)

1. positive biopsy
2. positive for **Anti-tissue Transglutaminase** IgA  
t-Transglutaminase Antibodies IgA
  1. or Anti-**Endomysium** (IFA)
  2. positive for Anti-**Gliadin** IgA or IgG, Gliadin Antibodies IgA ,Gliadin Antibodies IgG

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## Serologic Test Performance

	Specificity %	Sensitivity %
•	AGA-IgG	69 – 85
	73 – 90	
•	AGA-IgA	75 – 90
	82 – 95	
•	EMA (IgA)	85 – 98
	97 – 100	
•	TTG (IgA)	90 – 98
	94 – 97	

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- **Associated Conditions**

- The prevalence of Celiac Disease is higher in patients **who have the following:**

- Certain **genetic disorders** or syndromes  
e.g. Down Syndrome(4-19 %); IgA Deficiency

- **Other autoimmune** conditions

- Type 1 Diabetes Mellitus; Thyroiditis; Sjögren's syndrome

- Relative with coeliac disease



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- **Anti-tissue Transglutaminase IgA**

- Quantitative determination of IgA class antibodies against tTG
  - Identification of symptomatic and atypical CD
  - Objective and quantitative interpretation of results
  - Automation possible

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## • Gliadin antibodies

- the following products for detection of
  - antibodies against gliadin
  - Gliadin Antibodies IgG / IgA
    - Included in the ESPGAN guidelines 1990
    - Non-invasive diagnosis
    - Useful for monitoring dietary compliance **الالتزام**
- Schulzke J.-D. et al.; 1995

# Gastroenterology



- **Celiac Disease LIA**

- Quantitative determination of IgA class against tTG and gliadin

- Non-invasive
- Automation possible
- Objective interpretation of results
- Detection of the most important markers for CD

