

# ABSTRACT

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Title of Bachelor thesis: **Celiac disease – laboratory diagnostics**

**Background:** The aim of this Bachelor thesis was to capture the currently most used and the most appropriate laboratory tests for the diagnosis of celiac disease.

**Main findings:** Celiac disease is a serious disease and its diagnosis can be very complicated. In order to simplify and improve the diagnosis of this disease are issued recommendations that describe the conditions and methods, how to proceed with the examination of patients in different circumstances. Recommendations described in this Bachelor thesis are: Targeted screening for celiac disease, issued by the MINISTRY OF HEALTH in 2011 and the directive for the diagnosis of celiac disease, issued by ESPGHAN (European society for pediatric gastroenterology, hepatology and nutrition) in 2012. Both methodologies are based primarily on serological examination with immunological antibodies or autoantibodies. For the final diagnosis is necessary to undergo biopsy of the small intestinal mucosa and its histological examination.

**Conclusion:** Case studies presented here demonstrates the individuality of the cases and the difficult diagnosis of celiac disease. For correct laboratory diagnosis of celiac disease, it is appropriate to respect the methodology of MINISTRY OF HEALTH and the ESPGHAN. The studies listed here and the professional articles recommend to combine the examinations of serological screening markers – antibodies against: tissue transglutaminase, deamidated gliadin and endomysium. Due to the high sensitivities and specificity of these antibodies, there is a big probability of detection so far non-diagnosed patients. I hope that thanks to the methods and studies of serological markers of celiac disease will increase the success rate of diagnosis of this disease.