The bachelors thesis on the task of a radiological assistant during radioiodine diagnostics and treatment of thyroid gland carcinomas deals with the issue of thyroid gland carcinomas in the Czech Republic. It contains a brief overview of the types of carcinomas that affect the thyroid gland, their classification, diagnostics and therapy, concentrating on utilisation of modern examination methods and therapeutic practices, including among others application of radioiodine. The thesis also contains cases of four patients with similar diagnoses, the comparison of the development of whose respective illnesses I found interesting. Last but not least, the thesis includes a number of annexes comprising among others tables with important instructions for patients before and after application of radioiodine, and photographs from the site where the radioiodine application takes place