Currently, there is a lot of interest in bioactive compounds in plants and foods enriched with them. Green tea polyphenols may play a role in the risk and pathogenesis of several chronic diseases, especially cardiovascular disease and cancer. The health effects of polyphenols depend on the intakes and their bioavailability. The aim of this study was to investigate bioaccessibility of antioxidant activity from cheese enriched with green tea. Cheese was made with skim milk and green tea extract (0.4%). Milk was standardized to protein/lipid (1.30) and casein/lipid (1). The protein was enriched to 3% with milk protein concentrate. Calcium solution (35%) was added (32µL/100g milk) and pH was adjusted to 6.2. To produce cheese, rennet (0.01%) was mixed to milk. Serum composition was determined to confirm protein and lipid retention in cheese, 77.7 and 94.4% respectively. The bioaccessibility of antioxidant capacity from cheese enriched with green tea was studied in simulated digestion system. The effect of digested cheese dialysate on pig blood plasma oxidation in the presence of copper was determined. Antioxidant activity was associated with an increase in the lag time before conjugated diene production. Compared to the control, lag time increased in the following order: cheese without green tea<cheese with green tea<green tea without cheese. The lag time of cheese with green tea (105 min) was 10 times higher than the control, suggesting that cheese enrichment with green tea can be an interesting approach for the development of functional dairy food.