Human evolution and the evolution of our appearance in time is a research subject for a long time. This work summarizes existing studies, opinions and knowledge about possible importance of endurance running in the human evolution. This work analyzes possible benefits of the orientation on the endurance running and adaptations that are pointing on a possibility of the orientation on the endurance running by early Homo.

In the first part of my work I will focus on the possible use of endurance running by early Homo. I will analyze a possibility of using the endurance running for scavenging and in competition with other predators for carcasses. In the next part I will analyze possibilities of using endurance running for persistance hunting. Early Homo could hunt down their prey, drive it to exhaustion and then kill it from close range.

In the second part of my work I will analyze adaptations that could allow early Homo to practice endurance running. I will analyze adaptations in thermoregulation, that allow to dissipate heat generated by running. Then I will analyze energetic costs and adaptations that are decreasing energetic cost of running. Finally I will analyze anatomical adaptations that allow running, e.g. by keeping stability of human body.

Key words: Thermoregulation, early Homo, human evolution, bipedy, endurance running, persistence huntig