This study was conducted to investigate individual metabolic and endocrine adaptation to lactation under conditions of identical housing and feeding conditions in high-yielding dairy cows. Forty-five cows were studied on a research farm under standardized but practical conditions. From wk 2 before calving until wk 14 postpartum, blood samples were collected at weekly intervals and assayed for blood chemistry and various metabolites and hormones. Body weight, BSC, and backfat thickness were also recorded weekly.