OBJECTIVE: Maternal periodontitis has been suggested as an important risk factor for preterm low birth weight. The aim of the present observational study was to assess whether full-mouth therapy of periodontitis in pregnant women reduces the risk of preterm low birth weight. METHOD AND MATERIALS: From April 2006 to April 2007, 302 pregnant women who were at least 22 weeks of gestation were invited to attend a periodontal examination. Consent for periodontal screening was given by 62 mothers; 54 of them met criteria. Consent for periodontal treatment was provided by 12 patients (group 1), whereas 14 patients declined therapy (group 2). No periodontal therapy was indicated in 28 patients (group 3). Nonsurgical treatment was performed in group 1 as full-mouth disinfection between 22 and 30 weeks of gestation. Periodontal reevaluation was performed 4 to 6 weeks later. As primary outcome, the gestational age at the end of pregnancy was assessed in all groups. Secondary outcomes were birth weight and growth restriction. RESULTS: Periodontitis treatment improved periodontal measures.