BACKGROUND. Early skin-to-skin contact is the placing of the naked infant prone on the mother's bare chest at birth or soon thereafter. This timeframe could represent a 'sensitive period' for priming mothers and infants to develop a synchronous, reciprocal, interaction pattern, provided they are together in intimate contact. The purpose of this study was to evaluate the effects early maternal-infant skin-to-skin contact in the first 1 to 3 hours postbirth, compared to standard care, holding the infant swaddled in blankets for 1 to 1 1/2 hours, on breastfeeding outcomes up to one month postbirth. METHODS. A prospective, randomized, two-group experimental intervention design was used with 20 healthy primiparous mother-infant dyads (10 per group). Infant suckling competence was measured subjectively by the mothers, using the Infant Breastfeeding Assessment Tool, during each feeding for 7 days to determine the time of effective breastfeeding. Multiple measures were taken of breastfeeding status or exclusivity at days 1, 7, 14 and 30 postbirth. Measures, collected at one month, included the mother's perception of the adequacy of her milk supply, number of breastfeeding problems, and measures of perceived breastfeeding and parenting competence. RESULTS. Infants who were held skin-to-skin were able to suckle more competently during their first breastfeeding postbirth and established effective breastfeeding sooner than swaddled infants. Mothers of infants who were able to establish effective breastfeeding sooner postbirth reported fewer breastfeeding problems during the first postpartum month. Mothers with fewer breastfeeding problems had more breastfeeding confidence, commitment, and satisfaction, a perception of higher milk volume, and breastfed more exclusively at one month postbirth. Mothers who were breastfeeding more exclusively at one month postbirth intended to breastfeed longer than those who were partially breastfeeding at that time. CONCLUSION. Skin-to-skin contact is an effective intervention for enhancing breastfeeding success in the early postpartum period.