This prospective, randomized, clinical trial (RCT) was a two-center study, performed in Oulu University Hospital, Oulu, Finland, and the Central Hospital of Paijat-Hame, Lahti, Finland in 2011-2017. All information was collected via standardized questionnaires. The eligible participants were rando- mized into two groups (by using sealed envelopes) to be treated by BIN or ESIN. Patients with open fractures, significant soft-tissue injury, pathological fractures or previous fracture or infection in the forearm were excluded. In addition, patients with metabolic bone diseases, systemic disease or medication affecting bone quality or resistance to infection, or fractures older than seven days were predominantly ex- cluded. Patients, aged between 5 and 15 years, who suffered from single- or both-bone forearm shaft fractures requiring surgical fixation were invited. Patients were enrolled between November 2011 and January 2015; the enrol- ment time was 3 year and 3 months. The patients were investigated four weeks, three months, six months and two years postoperatively and contacted by phone one year post- .operatively. The last follow-up visit was exe- cuted in January 2017