INTRODUCTION: This study values quantitatively the bone formation due to periosteum and/or bone marrow-endosteum in distraction osteogenesis.

MATERIALS AND METHODS: Surgical procedure. One femur of 18 osteogenesis. due to periosteum and/or bone manow-endosteum in distraction

INTRODUCTION: This study values quantitatively the bone formation (contralateral one=control). Periosteum (P) and bone marrow (BM) were elevated; P: P stripped from the bone; BM: corticotomy; BM-: marrow cavity tilled with PMMA. 4 surgical groups were individuated: 1) mineral content (BMC) and density (BMD) were calculated. Femora were studied by energy x-my absorptiometry study (QDRlCOO, Hologic). The area, bone divided into 5 regions of interest (operated), or 4 (control), as shown below. Statistical study (JMP V2.0, SAS). Values (% obtained=[op. femur treated, according to their preservation (+) or destruction (-) : P+ ' P

RESULTS: X-ray evaluation: BM forms bone around the distraction gap, nor in the muscle. bone : Table I. Statistical analysis on the transformed data : Table B. The treated, according to their preservation (+) or destruction (-) : P+ ' P

CONCLUSION: A synergistic effect (spatial and qualitative) may result from the combination of periosteum and bone marrow-endosteum in bone healing.