

Creating a Box-Cavity Defect Model in the Cortical Bone of Rat Femora

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Materials

Name	Company	Catalog Number	Comments
1.2 mm slow speed ball drill	Dreybird Medical Equipment Co., Ltd.	RA3-012	For preparation of box cavity defects
3.0 suture	Chengdu Shifeng Co., Ltd.	None	For suturing wounds
4% paraformaldehyde	Biosharp	BL539A	For fix the femoral specimens
Cotton balls	Haishi Hainuo Group Co., Ltd.	20120047	For skin sterilization and cleaning of surgical field
Cotton sticks	Lakong Medical Devices Co., Ltd.	M6500R	For skin disinfection
Dental technician grinding machine	Marathon	N3-140232	For preparation of box cavity defects
Disposable scalpel	Hangzhou Huawei Medical Supplies Co., Ltd.	20100227	For creating skin incisions as well as to sharply separate muscle tissue
Electric shaver	JASE	BM320210	Removal of hair tissue from the surgical area
Hematoxylin and Eosin Stain kit	Biosharp	C1005	For the histological analysis of the specimens
Masson's Trichrome Stain Kit	Solarbio	G1340	For the histological analysis of the specimens
Micro CT	Scanco medical ag	µCT 45	For analyzing the healing of defects in femoral samples
Needle holder	Chengdu Shifeng Co., Ltd.	None	For suture-holding needles
Olympus Research Grade Whole Slide Scanning System VS200	Chengdu Knowledge Technology Co.	VS200	For analyzing the results of HE staining and Masson staining
Ophthalmic forceps	Chengdu Shifeng Co., Ltd.	None	For clamping skin, muscle tissue
Ophthalmic scissors	Chengdu Shifeng Co., Ltd.	None	For forming a skin incision approach
Oral low-speed handpiece	Marathon	Y221101003	For preparation of box cavity defects
Oral probe	Shanghai Sangda Medical Insurance Co., Ltd.	20000143	For measuring the diameter of defects
Periosteal separator	Chengdu Shifeng Co., Ltd.	None	For blunt separation of muscle tissue
Sprague–Dawley rats	Byrness Weil Biotech Ltd	None	For the establishment of femoral bone boxy cavity defect
Tissue scissors	Chengdu Shifeng Co., Ltd.	None	For forming a skin incision approach