

医用生物力学

YIYONG SHENGWU LIXUE

双月刊 1986年6月创刊 第32卷 第1期 2017年2月出版



[期刊基本参数] CN 31-1624/R * 1986 * b * A4 * 96 * zh + en * P * ¥15.00 * 2000 * 17 * 2017-02

主管
中华人民共和国教育部

主办
上海交通大学

承办
上海交通大学医学院附属
第九人民医院

出版
《医用生物力学》编辑部

编辑部
地址 上海市制造局路639号
邮编 200011
电话 (021)53315397
传真 (021)63137020
电子邮件 shengwulixue@163.com

网址
<http://www.medbiomechanics.com>
<http://www.mechanobiology.cn>

微博
<http://weibo.com/u/2040064195>

广告部 水汶

主编
戴焯戎

常务副主编
姜宗来

副主编
陈维毅 樊瑜波 龙勉
秦岭 郑诚功

编辑部主任
于志锋
E-mail: zfyu@outlook.com

责任编辑
徐绮
E-mail: 1534340082@qq.com

英文编辑
吴晓芸

编辑
《医用生物力学》编辑委员会

印刷
上海新开宝商务印刷有限公司

国内发行
上海市报刊发行局

国外总发行
中国国际图书贸易总公司

订购
全国各地邮局
邮发代号 4-633

定价
每期:15.00元 全年90.00元

国内统一连续出版物号
CN 31-1624/R

国际标准连续出版物号
ISSN 1004-7220
CODEN YSLIBU

广告经营许可证号
3100120050036

©2017年版权归《医用生物力学》编辑部所有

目次

专家论坛

力-血管蛋白质组学研究进展
..... 齐颖新(1)

论著

数值模拟人双耳感受体位变化的机制
..... 沈双, 郝庆印, 孙秀珍, 于申, 刘迎曦, 刘文龙, 王文君, 王慧美(8)

常压和高压环境下噪声对耳蜗的影响
..... 马钰栋, 姚文娟, 崔存玉, 陈懿强(15)

基于压电叠堆的砧骨激励式人工中耳低功耗结构设计
..... 王梦丽, 刘后广, 杨建华, 周雷, 黄新生, 韩帅(21)

离体狐眼外肌被动行为的超弹性分析
..... 郭红梅, 高志鹏, 陈维毅(27)

数值模拟不同充气压力对支架术后颈动脉力学环境的影响
..... 范振敏, 刘肖, 孙安强, 张楠, 范占明, 樊瑜波, 邓小燕(32)

利用头颈有限元模型研究散打运动中颈椎韧带损伤的风险
..... 柳茵, 李娜, 熊玮, 魏巍, 叶斌, 王维(38)

步态仿真下腰椎间盘退变合并骶髂关节紊乱的有限元分析
..... 刘慧, 张喜林, 周楠, 黄文杰, 沈国权, 杨晓伟, 周思涵(46)

不同槽沟方向舌侧托槽转矩控制性能三维有限元分析
..... 黄跃, 黄思源, 瞿杨, 何淞, 白丁(54)

无托槽隐形矫治器各参数对尖牙压低移动治疗的影响
..... 蔡永清, 杨晓翔, 何炳蔚(60)

L-NAME 诱导妊娠高血压大鼠动脉重建的特征
..... 刘妍妍, 姚庆革, 沈宝荣, 齐颖新, 张萍, 高立志(66)

Akt 调节切应力诱导骨髓间充质干细胞 Bmi-1 基因的表达
..... 王微娜, 孙晓东, 邱紫菡, 王汉琴, 黄铁柱(72)

骨质疏松患者股骨头不同区域骨结构与生物力学分析
..... 张向阳, 梁朝革, 唐献忠, 杨伟, 王嘉, 陈豪杰, 张国宁, 于志锋(77)

不同强度周期性动态力学载荷对微重力下骨质疏松的影响
..... 韩标, 张新昌, 李昊, 张西正(83)

无症状高尿酸血症大鼠血液流变学和氧化应激
..... 李葵花, 李璐, 许士奇, 佟晓波, 谢利德(88)

综述

太极拳运动下肢生物力学研究进展
..... 陈鹏, 刘海波, 姚杰, 王丽珍, 宫赫(92)

信号转导和转录活化因子3在骨髓基质干细胞成骨向分化中的作用
..... 周巴入, 张鹏, 江凌勇(98)

信息

《医用生物力学》杂志征稿、征订启事(20), 致读者(53), 《医用生物力学》杂志第六届编辑委员会名单(封二), 上海交通大学力学生物医学研究所简介(封三)

JOURNAL OF MEDICAL BIOMECHANICS

Published Bimonthly

Founded in June, 1986

Volume 32 Number 1, Feb. 2017

[Journal Basic Information] CN 31-1624/R * 1986 * b * A4 * 96 * zh + en * P * ¥15.00 * 2000 * 17 * 2017-02

Supervised by

Ministry of Education of
People's Republic of China

Sponsored by

Shanghai Jiao Tong University

Organized by

Shanghai Ninth People's Hospital,
Shanghai Jiao Tong University
School of Medicine

Published by

Editorial Office of
Journal of Medical Biomechanics

Editorial Office

No. 639 Zhizaoju Rd.,
Shanghai 200011, China

Tel: + 86 21 53315397

Fax: + 86 21 63137020

E-mail: shengwulixue@163.com

Website:

<http://www.medbiomechanics.com>

<http://www.mechanobiology.cn>

Microblog:

<http://weibo.com/u/2040064195>

Advertising division: SHUI Wen

Editor-in-Chief

DAI Ke-rong

Executive Vice Editor-in-Chief

JIANG Zong-lai

Associate Editors-in-Chief

CHEN Wei-yi CHENG Cheng-kung

FAN Yu-bo LONG Mian

QIN Ling

Editorial Director

YU Zhi-feng

E-mail: zfyu@outlook.com

Executive Editor

XU Qi

E-mail: 1534340082@qq.com

English Editor

WU Xiao-yun

Edited by

Editorial Board of

Journal of Medical Biomechanics

Printed by

Shanghai Newcabo Printing Co., Ltd

Overseas Distributor

China International Book

Trading Cooperation

China Standard Serial Numbering

ISSN 1004-7220

CN 31-1624/R

CODEN YSLIBU

Subscription

Yearly Subscription Rates: 90.00 RMB

Single Issue: 15.00 RMB

Advertising Management License Number

3100120050036

Copyright © 2017 by the Editorial

Board of Journal of Medical Biomechanics

Contents

Invited Review

Mechanics-proteomics progress on vascular mechnobiology

..... QI Ying-xin(1)

Original Articles

The mechanism of sensing postural changes in human ears by numerical simulation

..... SHEN Shuang, ZHENG Qing-yin, SUN Xiu-zhen, YU Shen,
LIU Ying-xi, LIU Wen-long, WANG Wen-jun, WANG Hui-mei(8)

Influence of noise under normal and high pressure environment on the cochlea

..... MA Yu-dong, YAO Wen-juan, CUI Cun-yu, CHEN Yi-qiang(15)

Low power consumption structure design of an incus-stimulating middle ear

implant based on piezoelectric stack

..... WANG Meng-li, LIU Hou-guang,

YANG Jian-hua, ZHOU Lei, HUANG Xin-sheng, HAN Shuai(21)

Hyperelastic analysis for the passive behavior of fox extraocular muscles

in vitro

..... GUO Hong-mei, GAO Zhi-peng, CHEN Wei-yi(27)

Effects of inflation pressures on mechanical environment in carotid after stent

implantation by numerical simulation

..... FAN Zhen-min, LIU Xiao, SUN An-qiang,

ZHANG Nan, FAN Zhan-ming, FAN Yu-bo, DENG Xiao-yan(32)

Risk assessment of cervical ligament injury in Sanda combat (Chinese

boxing) by using the finite element head-neck model

..... LIU Yin, LI Na, XIONG Wei, WEI Wei, YE Bin, WANG Wei(38)

Finite element analysis of lumbar disc degeneration with sacroiliac joint

disorder by gait simulation

..... LIU Hui, ZHANG Xi-lin, ZHOU Nan,

HUANG Wen-jie, SHEN Guo-quan, YANG Xiao-wei, ZHOU Si-han(46)

Three-dimensional finite element analysis on torque performance of lingual

brackets with slot in different directions

... HUANG Yue, HUANG Si-yuan, QU Yang, HE Song, BAI Ding(54)

Effects on canine intrusion treatment with different Invisalign parameters

..... CAI Yong-qing, YANG Xiao-xiang, HE Bing-wei(60)

Characteristics of vascular remodeling in pregnant hypertensive rats induced

by L-NAME

..... LIU Yan-yan, YAO Qing-ping,

SHEN Bao-rong, QI Ying-xin, ZHANG Ping, GAO Li-zhi(66)

Bmi-1 expression of bone marrow mesenchymal stem cells induced by fluid

shear stress mediated with Akt signal molecule

..... WANG Wei-na,

SUN Xiao-dong, QIU Zi-han, WANG Han-qin, HUANG Tie-zhu(72)

Analysis on microstructure and biomechanical properties in different regions of

osteoporotic femoral head

..... ZHANG Xiang-yang, LIANG Chao-ge, TANG Xian-zhong,

YANG Wei, WANG Jia, CHEN Hao-jie, ZHANG Guo-ning, YU Zhi-feng(77)

The effect of periodic dynamic mechanical load with different intensity on

microgravity-induced osteoporosis

..... HAN Biao, ZHANG Xin-chang, LI Hao, ZHANG Xi-zheng(83)

Hemorheology and oxidative stress in rats with asymptomatic hyperuricemia

..... LI Kui-hua, LI Lu, XU Shi-qi, TONG Xiao-bo, XIE Li-de(88)

Review Articles

Progress of biomechanical study on the lower extremity in Tai Chi movement

... CHEN Peng, LIU Hai-bo, YAO Jie, WANG Li-zhen, GONG He(92)

The roles of STAT3 in osteogenesis of bone mesenchymal stem cells

..... ZHOU Si-ru, ZHANG Peng, JIANG Ling-yong(98)

News and Announcement

..... (20)(53)