## CONTENTS

EDITOR'S COMMENT	99	
GUEST EDITORIAL	101	
MAIN ARTICLES  Evaluating fracture healing using digital X-ray image analysis  Fracture healing is not easily monitored using currently available techniques.  S P Whiley	102	
Facial image analysis to detect gestational alcohol exposure  Large-scale screening and surveillance would identify communities most at risk of fetal alcohol syndrome in South Africa.  T S Douglas	108	
Advanced magnetic resonance imaging of the brain  MRI is now the method of choice for neuro- and spinal imaging.  E Meintjes	112	
Cardiac magnetic resonance imaging  Cardiovascular magnetic resonance imaging is becoming a routine diagnostic technique.  B S Spottiswoode	116	
New developments in medical imaging to detect breast cancer  Breast cancer is still one of the most common cancers in women.  C L Vaughan	122	
MORE ABOUTBiomedical engineering and medical imaging Shedding light on the brain with near-infrared spectroscopy  A Roos and F Robertson	126	
Computer-aided diagnosis in chest radiography A Mouton and T S Douglas	127	
ABSTRACTS	129	
AIDS BRIEF	130	
NEWS BITES	131	
PULSE	134	
PROFESSIONAL ADVERTISING	135	
CPD QUESTIONNAIRE	136	



## COVER: HOUT BAY HARBOUR

Roger Melvill's grandmother provided the initial inspiration for him to become a painter. However, that dream was put on hold for many years while he pursued the field of neurosurgery. Now that he has the time to paint, he longs to produce works that are pleasing and that do justice to the magnicifent beauty in creation.





The appearance of advertising in SA Medical Association publications is neither a guarantee nor an endorsement of the products or the claims made about the products by the manufacturer.





Editor BRIDGET FARHAM BSc (Hons), PhD, MB ChB

> Guest Editor TANIA S DOUGLAS, BSc (Eng), MS, PhD

Technical Editors
MARIJKE MAREE
PAULA VAN DER BIJL

Manuscript Co-ordinator ELSA LAMPROPOULOS

> Head: Health and Medical Publishing ROBERT ARENDSE

Production Manager FMMA COUZENS

Professional Advertising
BELINDA DOYLE
Tel. (021) 681-7210

Art Director
SIOBHAN TILLEMANS

DTP/Layout & Setting
CLINTON GRIFFIN
TRAVIS ARENDSE

Online Manager GERTRUDE FANI

<u>Distribution Manager</u> EDWARD MACDONALD

Sales and Marketing Director
DIANE SMITH
Tel. (012) 481-2069
E-mail: dianes@samedical.org

Sales Manager
AZAD YUSUF
Tel. (012) 681-7202
E-mail: azad@hmpg.co.za

Sales Team LISA REID KEITH HILL ANDREW CROSS

Subscriptions
RINA SWART
Tel. (012) 481-2011
E-mail: rinas@samedical.org

CME Editorial Board
VANESSA BURCH
TARYN YOUNG
A J MBOKAZI
DAVID KETTLES
NCOZA DLOVA

ISSN 0256-2170

©Copyright: The South African Medical Association, Health and Medical Publishing Group

Use of editorial material is subject to the Creative Commons Attribution – Noncommercial Works License. http://creativecommons.org/ licenses/by-nc/3.0/

Printed by Creda Communications Pty Ltd