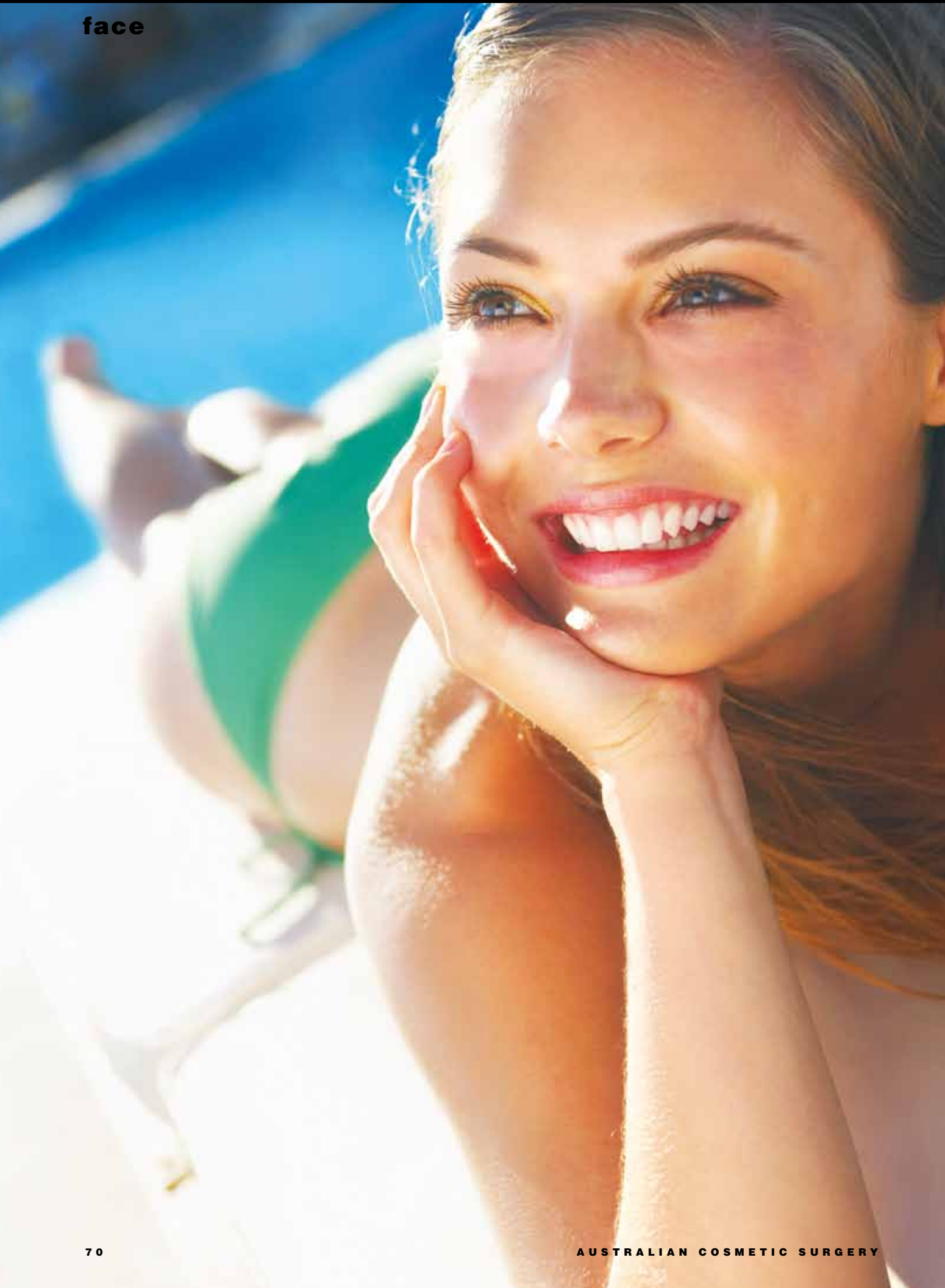




face



# fat grafting: from filling to tissue regeneration

Sydney cosmetic surgeon **Dr Longin Zurek** explains some of the benefits of fat grafting for replenishing and rebalancing tissue volume. Tara Casey reports.

**M**ore than 100 years have passed since fat grafting was first reported as being used successfully to repair facial defects. Surgeons at that time recognised the great advantage of fat transfer for reestablishing fullness and correcting contour irregularities.

Unpredictable fat graft survival has, however, always been a problem. Although today this has not been completely solved, great progress has been made in improving the results. New techniques of reducing the size of the graft to tiny 'fat parcels' encourages a better blood supply to the tissue, and reinserting the fat via micro-injections reduces damage to the delicate fat cells.

In recent years studies of fat tissue have shown that in addition to mature fat cells, fat tissue contains stem cells capable of differentiating into many types of tissue such as bone, cartilage, muscle, blood vessels and nerves. This ability allows the fat to enhance new vessel formation or even replace damaged cells.

In addition to the known function of fat as an energy reservoir with insulating properties, it has now become apparent that fat is a repair organ and capable of soft tissue regeneration.

Fat grafting has been successfully used to treat ulcers following breast radiotherapy and burns, severe capsular contracture around breast implants, reconstruction of breast deformities, among others.

Remarkable improvement in skin quality has also been observed several months following the fat grafting procedure, which is probably the result of introduction of stem cells and growth factors.

Dr Zurek has some 15 years' experience in fat grafting, his main interest being replenishing and rebalancing volume as part of facial rejuvenation, which can be performed as a separate procedure or in combination with a face or neck lift. **acsm**



BEFORE and AFTER peeling process and fat implantation by Dr Charles Willi in the early 20th century



BEFORE



AFTER micro fat grafting by Dr Zurek (Note the improvement in skin quality)