

# Minimising the risk

**Simon Wright** explains how to reduce the chance of implant failure.

Implants are now a common and predictable method for replacing natural teeth, and we are able to quote high success rates in both the maxilla and the mandible.

When we refer to success, we are describing an implant that is in optimum health, aesthetic, and is restored with a restoration that is maintainable.

Our treatment planning protocols are now centred on recognising and minimising the potential risk factors that may affect the long-term success. The importance of these is heightened in an aesthetic case. The most significant risks or factors are:

- **Host Susceptibility:** history of periodontal disease, history of peri-implant disease, uncontrolled diabetes and genetic disorders.
- **Prosthetic Design:** oral hygiene, retained cement, passive fit of the restoration and occlusal scheme.
- **Implant Design:** surface roughness, keratinised mucosa and poor surgical technique.
- **Patient Factors:** oral hygiene, smoking and stress.

The literature is clear that optimum periodontal health, adequate oral hygiene, smoking cessation advice and well-controlled system conditions are a pre-requisite prior to implant treatment. However, it is also clear that our implant and prosthetic design is important for long-term success. The following case study highlights a number of simple ways to minimise risk factors and ensure aesthetic results.

## Simon Wright

is a senior lecturer at the University of Salford and co-director of ICE foundation and academic lead, ICE Institute and MSc Programme in implant dentistry.



Fig 1.



Fig 2.



Fig 3.



Fig 4.



Fig 5.



Fig 6.



Fig 7.

## Case study

The patient had post crowns replacing both central incisors and the upper right lateral incisor. The crowns failed and were removed by the referring dentist. The patient also disliked the conventional crowns on the upper right lateral and canine.

Two BioHorizons implants were placed in position upper left lateral incisor and upper right central, in a delayed-immediate protocol using a surgical guide. A transmucosal healing cap was placed to start to form the soft-tissue profile. The



Fig 8.

☞ patient was temporised with a removable denture.

The implants were restored eight weeks later using the '3inOne' abutment, and a cement-retained bridge that had been modified to allow access to the abutment screws was fitted. The conventional crowns on the natural teeth were also replaced.

### Modifying the risk factors

There is evidence to suggest that a screw-retained bridge is never passive, irrespective of the technology or extent that the clinician may go to in order to achieve a perfect fit. However there are obvious advantages to a restoration being screw retained; these include retrievability and no risk of retained cement.

In this case the restoration is cement-retained, but also access is allowed to the abutment screws, this has several advantages:

- There is no need for a transfer jig the bridge itself can perform this function.
- There is no opportunity for the implants to spin on torquing down the abutments – the bridge will splint the implants while this is being performed.
- The restoration is passive, but still screw-retained and retrievable.
- The restoration can be removed, excess cement cleared, and the crown-abutment interface checked and polished.

### Implant design and position

The angulation of the implant is critical to ensure that the

emergence of the abutment screw is palatal to the incisal edge, and the three-dimensional position of the implant fundamental to ensure long-term aesthetic results. A surgical guide is imperative to ensure this.

The implant of choice was a BioHorizons Tapered Internal as the Laser-Lok allows for predictable long-term hard and soft tissue stability.

### Maintenance

Adequate oral hygiene and appropriate professional screening for early signs of peri-implant disease is required. At the fit of the restoration and at each assessment appointment probing depths, the absence and presence of bleeding on probing should be recorded and the occlusal scheme assessed.

## Extra support for implant cases

Momentum is growing behind a new campaign to help dentists and dental technicians to share in the proceeds of implant dentistry growth. The aim of the 'Goodbye Gaps' programme is to get 1m people with missing teeth into dental practices to discuss implant treatment. This initiative expands and amplifies the extensive support already offered by Dentsply Implants to help dental professionals gain more fee income from treating implant cases.

The Goodbye Gaps campaign improves patient access to dentists who place implants, through direct contact as well as via referral by their own general dental practitioner. In partnership with dentists around the country, the information available to patients about implant treatment is also being increased, through national and local, online and print media.

General dental practitioners who want to begin restoring implant cases for their own patients can get started by attending 'RELAX' events hosted by local surgical partners across the country. The 'RELAX' package includes free training and a mini prosthetics kit with which to restore the first implant case. Dentsply Implants also offers dentists who restore implant cases chair-side literature and merchandising to help acquaint their patients with the treatment options and benefits.

Tim Earl of The Lodge Dental Practice in East Sussex restores dental implant cases for his patients, following surgical placement at The Implant Centre in Haywards Heath. Tim says: "Offering dental implants to my patients gives them the full spectrum of treatment options. This enables me to present a complete, rounded treatment plan."

Further training is available to clinicians wishing to learn to restore more complex cases. This is backed by

local clinical support from surgical partners. In-practice marketing advice and support is also available through Dentsply Implants' nationwide network of local territory managers.

Dentists who place and/or restore implants also benefit from Dentsply Implants' investment in national campaigns, utilising both print and online media. Thousands of additional patient enquiries are generated annually via the website [www.dentists4implants.com](http://www.dentists4implants.com)

For dentists who place implants, Dentsply Implants offers active support for development of referral networks and increasing referral volumes, encouraging general practitioners to restore cases for their own patients. Implantologists can also access specialist help to improve the effectiveness of local advertising to attract new patients. Practitioners who wish to raise their profile within the profession can participate in a programme of clinical articles published regularly in professional journals.

