Microscopes under the... microscope

With a multitude of applications, it’s essential you consider introducing a dental microscope to your practice if you haven’t already, says Philip Bolton

All dental practitioners, whether they provide specialist treatment or general dentistry, can benefit from the advances that have been made in dental microscopy. In order to meet the needs of patients and achieve a high standard of clinical excellence consistently and efficiently, the dentist needs access to the most effective and reliable equipment.

At Oak Lodge Dental Practice we focus on general dentistry, providing a wide range of treatments including cosmetic and restorative procedures and have a strong working relationship with a local orthodontic specialist. Maintaining a firm grasp of the latest advances in technology and techniques is vital, so that we can continue to offer the state-of-the-art service our patients expect.

A useful tool

Dental microscopes have an almost infinite application in general dentistry; procedures that can be facilitated include endodontics, aesthetic composites, appraising crown margins or the base of fillings, and examining teeth for cracks. The right selection facilitates superior restorations, aesthetics, crown and bridgework, making procedures such as margin finishing much easier.

Many dental professionals take full advantage of the wide array of courses and conferences available throughout each year to enrich their skills and knowledge. Such events are ideal for those among us keen to explore the opportunities offered by new developments in the industry.

Having used loupes for almost a decade, I found that I was constantly increasing the magnification in order to achieve a more comprehensive diagnosis; being able to examine tooth structure more closely, for instance, ensures that no cracks are overlooked due to the limitations of the magnification devices used. While attending an informative course on Endodontics at the Eastman Dental Institute, I was able to take part in a practical demonstration in the use of a dental microscope.

Consider the factors

It is crucial to consider all of the factors before making an investment in new equipment. Cost is not the only consideration; there is also the question of reliability, intuitive use and easy integration into the surgery. These are all aspects that need to be reviewed before a final decision is made.

Visiting the Nuview stand at a major exhibition presented the opportunity to explore the features of a cutting edge microscope designed exclusively for dentistry. The OPMI Pico, from Carl Zeiss, impressed me with its quality of build. As the Nuview team explained, ‘You can’t treat what you can’t see’, and microscopes are now available that offer users vital features such as superb depth orientation and contrast, whilst the application of apochromatic technology ensures reliable focus.

Key features

The facility for variable magnification makes dental micro-
scopes an attractive prospect, as being able to zoom in and out of the treatment site enables the clinician to achieve the very best view.

Dental microscopes of the highest quality are available at costs to suit every budget, and there are certain features to which the dentist should pay close attention before committing to a purchase. Advanced microscopes can incorporate video cameras and an outlet for a digital camera, so discussing the features and hardware needed is important.

Patient comfort is a priority in every dental surgery, but with the new advances in equipment design, dental professionals can also enjoy the benefits of optimum posture. Advanced microscopes are designed in line with the latest ergonomic theory, with the controls within easy reach. The clinician can retain a straight back throughout procedures, and due to the mounting options available, there are no trailing leads to create potential hazards in the surgery.

Illumination is something of a given with magnification equipment, and an integrated light source is essential. The Superlux 180 xenon light, integrated into one of the cutting edge microscopes on the market, enables the clinician to operate in conditions similar to daylight, and easily examine areas of the treatment site that may be difficult to see with previous generations of equipment.

Being able to capture video is immensely beneficial, and the freeze frame option promotes excellent communication with the patient. This enables the clinician to show the patient exactly what has been observed using the microscope, providing a visual aid that is highly effective when explaining treatment options and the details of procedures to patients.

The importance of service

As impressive as these features might be, it is crucial to get a high standard of service from the supplier. An investment in cutting-edge technology will necessitate ongoing support, so dentists must ensure that their supplier provides an equipment survey to ascertain your needs, full installation, training and expert aftercare.

The service I received from Nuview is a great example of what dentists should expect from their supplier. When my supplier entered the practice in order to install the microscope, the team noticed that one of the overhead lights was set to obstruct the microscope fixture. Not only did the supplier remove the light in order to make room for the microscope, the team also replaced the light in a more suitable place at no extra charge. This is the standard of service companies can be proud of, and the standard customers should come to expect.

Dentists should ensure that their supplier can easily be contacted, should any technical support be required. The new generation of dental microscopes are advanced pieces of equipment, and access to expert assistance should be included as part of the package.

For more information, call Nuview on 01453 759659, email info@nuview-ltd.com or visit www.coroscopes.co.uk.

About the author

Dr Philip Bolton qualified at the Royal Dental Hospital, London, in 1974. After several surgical training posts, he went into private practice in London and the Home Counties. In the mid-1980’s, having been a resident in Lipnook for several years, Philip and his wife, set up Oak Lodge Dental Practice. Since establishing the business, Philip has gained extensive experience in cosmetic dentistry and is now offering both surgical and restorative phases of implant therapy. Philip is skilled at putting all patients – including nervous patients and children – at ease.