Implantology – The Camlog Way

With well over a thousand implant systems currently on the market there is a lot of choice when it comes to picking the right one to put in your practice. After extensive experience with a variety of systems dating back to the mid 1990s, I recently began placing Camlog dental implants, developed by Dr. Axel Kirsch. This was after seeing the system being extensively used in Germany by some of my colleagues. I could clearly see the merits of the system along with the final results being produced.

Surgical

The system is well thought out and has all of the features that most of the widely used systems have. The surgical kit is incredibly easy to use with a logical colour coded drilling sequence. An attractive design feature is the incorporation of removable depth stops for all the burs. These stops slide on and off easily, making maintenance simple while fitting well to the bur shank. The profiling drills are not end-cutting, so they will follow the pilot hole closely.

The combination of these two features acts as a failsafe, which is especially neat for the inexperienced. I found from my mentees, that this was a big plus in their minds.

Benefits at a glance

- One surgical set for both implant types
- Colour-coded instruments arranged in the surgery set in logical order of use
- Depth stops and laser markings for safe and individual implant bed preparation
- Special design of multiple-use drills for atraumatic, efficient and accurate
implants

preparation

• Implant packaging includes cover screw for submerged healing

There are two implant types in the Camlog system:

CAMLOG® Implants: The heart of the CAMLOG® Implant Systems is the innovative implant-to-abutment connection, known as the Tube-in-Tube™. The positive press fit of the highest precision and anti-rotation stability allows the simple and durable prosthetic rehabilitation of single crowns and bridges as well as a secure and lasting screw connection.

As a result of this positive press fit and the specially designed cams of the Tube-in-Tube™ connection, all forces acting on the connection are distributed in an ideal manner. The abutment screws are minimally loaded and only have a holding function. Therefore, screw loosening or screw fractures are practically eliminated. Clinical results confirm these outstanding properties. (Fig 1)

Tube-in-Tube™ connection – Benefits at a glance

• Precise, anti-rotational positive locking allows simple and durable prosthetic connections

• Three grooves (implant) and three cams (abutment) enable clear, secure and fast positioning of abutments

• Comparative studies with other well-known implant systems have demonstrated that the CAMLOG® connection yields excellent results for fit and accuracy

CONELOG® Implants - The CONELOG® implant is equipped with a conical (7.5°) connection combined with a three groove index system. This gives all the benefits of the tried and tested conical connection and is my personal preference.

The CONELOG® abutments are conical apically and have three cams which slot effortlessly in to the implant to form a
Extra clarity for implantology, endodontics and oral surgery

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positive connection. The abutment does not cover the implant shoulder, thereby, offering integrated platform switching.

**Conical Connection - Benefits at a glance**

- Precise, self-locking anti-rotational conical implant/abutment connection
- Integrated platform switching
- Proven CAMLOG indexing makes abutment positioning simple, fast and accurate
- Accurate and tight microbial seal

**Implant Surface - Benefits at a glance**

- Sand-blasted, acid etched Promote® surface for fast osseointegration
- Six weeks healing time in good bone quality
- Scientifically documented, clinically proven

The following case studies demonstrate the surgical and prosthetic flexibility of the Camlog system from clinicians who understand the need for a reliable and user friendly system.

**Case Study 1**

Dr Marcus Gambroudes BDS (U. Birm) (Fig 2) is a principal dentist at Cape Road Dental Practice & Implant Centre in Warwick and director of The Warwickshire Oral Surgery Clinic, where he receives referrals for both simple and complex implant cases.

Marcus is a Committee Member of the Association of Dental Implantology (ADI) and an active member of the International Team for Implantology (ITI)

His main area of interest is in guided surgery and immediate load. He also works alongside Consultant Oral and Maxillofacial Surgeon Mr Sat Parmar offering treatment under general anaesthetic.

This 67-year-old lady was referred to me with a view to replacing her failing upper incisors with dental implants. This was to include replacement of her upper right canine that was lost some time ago and being replaced with a badly de-
signed cantilever bridge.

Her medical history was clear and she had a heavily restored dentition that was otherwise well maintained. Her oral hygiene was excellent. (Fig 3)

Following a full clinical and radiographic examination I opted to extract all four incisors with immediate implant placement. In this case, I chose to replace each tooth with a dental implant. Not something I would routinely do, however, I was concerned about the long-term prognosis of some of her upper posterior teeth and this would give me the option of creating a reduced dental arch, with minimal future intervention should the need arise.

The sockets were thoroughly debrided and implant osteotomies were prepared to engage the palatal shelf and ensure good primary stability (Fig 4). All four sites were prepared to receive 3.8mm x 11mm Conelog® Implants. The implants were placed and covered with the closure screw provided. Any local defects were augmented with Bio-Oss particles and a Bio-Guide membrane was used to stabilise the graft material. (Fig 5)

The healing was uneventful and the implants were uncovered after approximately 12 weeks. Large wide body healing caps were inserted to commence site development. This was followed by open-tray pick-up impressions two weeks later. (Figs 6&7)

The laboratory produced four cast abutments. These were milled parallel and a five-unit fixed porcelain fused to metal bridge was constructed as the definitive restoration. This was cemented in place to achieve an excellent final result. (Figs 8-10)

“I have been placing and restoring CAMLOG implants for several years with great success, due to its precision and simplicity in both the surgical and restorative aspects. The system also offers complete versatility with terrific affordability, without compromise. CAMLOG has well over 10 years history of use and clinical studies to back it up. For my patients, I want to provide the best treatment and materials I can.”

Case Study 2

Andrew Chandrapal BDS MFGDP(UK) DPDS(Bris) MClinDent(Pros) qualified from Birmingham University and rapidly progressed to achieve further qualifications and training which form the basis of his special interests, dental cosmetics, bonding rehabilitation and management of wear. Andrew works with eminent colleagues in various disciplines of dentistry to create smiles that not only look naturally outstanding but also function efficiently and comprehensively.
Andrew has gained knowledge in all aspects of restorative disciplines and continues to update his knowledge with international studies on a regular basis. His interests and skills have led to a focus on prosthodontic interfaces and composite bonding.

He is Chair of communications on the Board of Directors for the British Academy of Cosmetic Dentistry and a longstanding member of the AACD, the International Team for Implantology, the Association of Dental Implantology and the British Society of Occlusal Studies. He is also an educator to other dentists and key opinion leader to the industry within the disciplines of aesthetic dentistry, treatment planning and composite resin artistry. (Fig 11)

All lab work for Andy Chandrapal is credited to Allport and Vincent Dental Laboratory. Monument Business Park, Warpsgrove Lane, Chalgrove, Oxford. OX44 7RW

This lady was presented with advanced periodontal disease affecting all her remaining teeth and was looking for a “fixed solution”. The first stage in the treatment process was to remove all the remaining teeth and provide conventional upper and lower full dentures. (Fig 12)

Following a healing period of approximately three months the patient’s existing dentures were relined and duplicated to form radiographic stents. This was done using a mixture of 10-15 per cent Barium Sulphate in the base acrylic and radiopaque teeth (SR Vivo TAC and SR Ortho TAC by Ivoclar Vivadent). The patient was then referred to have CT scans of both jaws. (Fig 13)

The digital data obtained from the scans was then used to plan the positions of the Camlog implants and sent to a specialist laboratory for surgical drilling guides (Camlog Guide) to be produced. There was sufficient bone for...
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*  The Dental Advisor, Vol. 23, No. 3, p 2-5
user report  Camlog

six implants in the upper jaw and four interforaminal implants in the lower (Camlog Guide Screw Line Implants, Promote Plus). The laboratory also provided the provisional acrylic bridges to immediately load the implants after placement.

With the planning complete the patient returned for surgery. This was carried out under local anaesthetic, and involved securing the surgical guide with small pre-determined screws followed by preparation of the implant beds with the corresponding guided drills. (Fig 14) The upper jaw was completed first, followed by the lower. The provisional acrylic bridges were then secured to the implants.

The provisional bridges were left in situ for approximately six months before being removed and impressions taken for the definitive bridgework. Duralay verification jigs were used to ensure the accuracy of the impressions. (Fig 15)

The definitive, screw retained, bridges were constructed from a milled bar overlayed with acrylic. The patient was delighted with the result. (Figs 16-18)

“The CAMOG system was introduced to me around three-four years ago when I found more and more indications for finding a more economical solution to restoring edentulous arches. After looking into CAMLOG implants and their restorative versatility together with the simple system of placement I trained up on CT guided implant placement and found the guided CAMLOG implants to be of perfect application to my needs.

I now use CAMLOG implants for most of my surgical and restorative cases. My laboratory technician based in California is also very comfortable with the system resulting in superior technical results as well as the simplicity and versatility of placement. It appears to be a well researched and documented system to which I have found the product support to also be very good.”

Case Study 3

Marc Northover (Fig 19) is considered to be one of the UK’s leading Clinical Dental Technicians, where for the last decade he has worked as an opinion leader on behalf of an international dental organisation, offering master classes and one-to-one mentoring to up and coming Clinical Dental Technicians. Marc regularly teaches on courses for dental professions in the UK and abroad on his chosen topic of complete dentures and continues to work very closely with...
Marc graduated from the Royal College of Surgeons, England in 2007 with a Diploma in Clinical Dental Technology and was a founding advisory board member of British Association of Clinical Dental Technology and remains an active member today. Marc’s professionalism, patient care and expertise were recognised at the annual Dental Awards 2009 and 2010 where he was awarded Clinical Dental Technician of the year for two consecutive years.

He practices as a CDT at Changing Faces® Denture Clinic, Birmingham, where working with Dental Practices that share his vision, he offers the highest standards of care possible as part of a multi-disciplinary team. Marc is a regular delegate at international conferences and has a particular interest in the role of dental implants to assist denture stabilisation.

This delightful 56-year-old lady presented to me complaining that she wasn’t happy with the appearance of her teeth and she couldn’t tolerate wearing dentures. She had had some teeth extracted a short time before and was given a set of immediate partial dentures that were poorly fitting and causing a lot of discomfort. (Fig 20)

The patient had obvious on-going issues with her remaining teeth and was referred to a colleague for a full examination. It was clear that all the remaining teeth needed to be extracted. This was duly carried out and the patient was constructed a set of transitional full upper and lower dentures whilst her mouth healed. This was a very positive step forward for the patient however she was still experiencing some difficulty retaining her new teeth, especially the lower set.

After a lengthy discussion about her options, she opted to proceed with implant supported overdentures. This traditionally constitutes a minimum of four implants in the maxilla and two in the mandible. This option would also allow me to uncover the patient’s palate and increase her taste and temperature per-

![Fig. 21](image1.png) ![Fig. 22](image2.png) ![Fig. 23](image3.png)
Four Conelog® Implants were placed in the maxilla and two in the mandible. Even distribution of the maxillary implants is essential to ensure adequate retention and the distribution of occlusal forces. (Fig 21)

After a healing period of three months the implants were uncovered and Locator Attachments (Zest Anchors) were torqued on. (Fig 22)

This was followed by construction of a new set of implant retained overdentures. (Figs 23 & 24)

I have found working with the Camlog company extremely refreshing as have my colleagues. They are a fast moving and forward thinking set up who have embraced the modern way of communication, back up and teaching. I find their on-line blog service Camlog Connect extremely useful. The platform demonstrates case studies from international clinicians via videos, pictures and webinars. There is also an excellent iPad/iPhone App which makes all the information required at your fingertips.