

# A Commonwealth Dental Association / Dentaïd Initiative

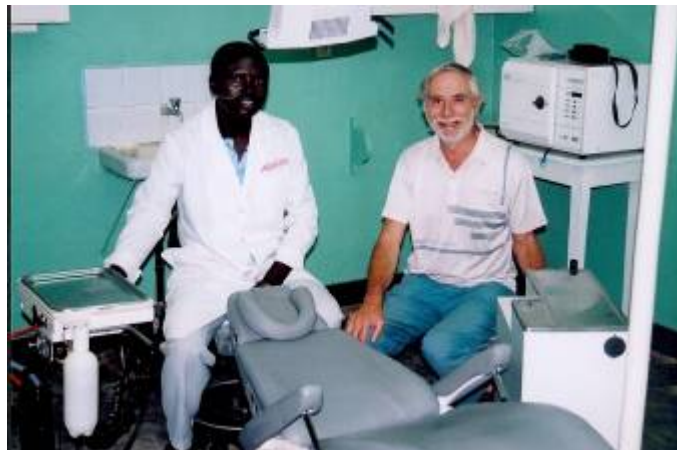
## The training of two dentists from Tanzania in the use and safety procedures of dental equipment

### Dentaïd's Engineer Training activities

Luke Wordley, Chief Executive, Dentaïd

### Introduction

Dentaïd is a specialist oral health charity based in the United Kingdom and set up in 1996. The charity's main activity since then has been the collection and full refurbishment of donated dental equipment which is then sent to charitable and governmental clinics and hospitals all over the world. The charity is currently supplying around 30 fully refurbished dental surgeries overseas annually and have now supported projects in 43 countries. Further details of our work can be found at our website at [www.dentaïd.org](http://www.dentaïd.org).



The sustainability of our equipment operation is uppermost in our minds and we send maintenance manual with all surgeries we send so the equipment is regularly maintained and serviced. We also provide an ongoing spares service to our partner projects, having kept careful records of Dentaïd equipment supplied and, on a number of occasions, have remotely fixed equipment through picture based repair sequences and couriered spare parts. As a result, even from surgeries we sent overseas as long ago as 1996, we receive regular reports that the equipment is fully functional and working well.



Sadly, hundreds of dental clinics across the world are limited in the standard of care they can provide as a result of dental equipment not working having developed simple

faults which no-one is qualified or empowered to fix. In western countries where there are often many thousands of dentists, there is a flourishing support industry of suppliers, manufacturers and trained dental engineers to maintain equipment. In many of the poorer countries of the world, where there may be less than one hundred dentists, such a support industry does not exist. As a result, if the general hospital technician cannot fix it, or indeed the dentist themselves, then the equipment is likely to be left un-repaired limiting the treatment available to patients. This is extremely serious if the broken or un-serviced equipment is for sterilisation as is sometimes the case. For many years, Dentaïd has received requests from clinics, hospitals and governments to provide a solution to this particular problem.

### **Engineer training**

In view of this, at the beginning of 2003, Dentaïd's engineers began to work on an engineer training programme designed to respond to this skills gap, both within the projects we support, and other clinics. They embarked upon the development of engineer training resources and courses specifically designed to be appropriate to the developing world context, and the target trainees. One of the key components of our approach is to ensure that the resources we produce can be delivered through a variety of means. By the end of 2003, the first modules of the course were completed in draft form and the engineers were keen to apply the resources in a direct training environment.



### **Pilot training course – November, 2003**

Dentaïd was originally planning to hold a pilot programme involving two Zambian technicians based at the Lusaka Dental Training School to visit Dentaïd for a pilot Engineer Training Course. However, combined with a trip elsewhere in the region, Dentaïd was able to send one of its engineers to Lusaka to provide hands-on training on the actual equipment the technicians were responsible for (see last photo). Dentaïd had previously supplied eight refurbished dental surgeries to the Lusaka school. Dentaïd was therefore able to turn its attention to a request it had received through a dental company to provide training to two government medical engineers who worked in the main government hospital in Dar Es Salaam. Dentaïd, together with the CDA, was able to host the 2 engineers from Tanzania and was able to provide an intensive two-week training programme at the Dentaïd workshops in Salisbury, UK.



Subjects covered during their visit included:-

- Introduction to Dental Equipment and Safety

- Basic mechanical theory and safety
- Basic electrical theory and safety
- Detailed studies of chairs, lights, delivery units, autoclaves, aspirators, compressors and other surgery items.

A special emphasis was placed on maintenance and fault finding.



The visit was a great success and the two engineers learnt an enormous amount during their time with us. As well as the knowledge Dentaïd's engineers were able to impart, the Tanzanian engineers were also equipped with a new toolkit and electrical testing equipment.

### **Future of engineer training**

As a result of this successful pilot training programme, Dentaïd is planning an expansion of our engineer training. For a number of reasons, Dentaïd have decided that future courses should be held in the country where the recipients of the training are working. For this reason, a much-expanded course is being organised to take place (probably) in Uganda in February 2006 training up to ten engineers and hospitals technicians from all over Uganda, both from charitable and government clinics. Following this, we would hope to hold further training courses in different countries on a regular basis. In addition, we hope to publish our engineer training resources in book form and distribute as widely as possible and through our website at [www.dentaïd.org](http://www.dentaïd.org).

We look forward to exploring in the future potential collaborations with the Commonwealth Dental Association and its members in this vital initiative.



Dentaïd engineer training in Lusaka, Zambia