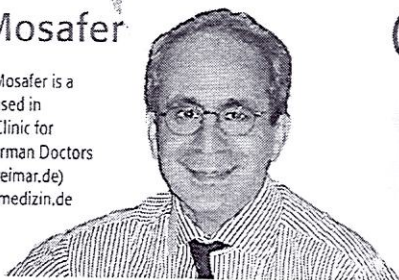


## Interview Dr Azim Mosafer

Born in Afghanistan, Dr Mosafer is a German spine surgeon based in Bad Berka at the Central Clinic for Spine Surgery. Afghan-German Doctors Association ([www.adav-weimar.de](http://www.adav-weimar.de))  
[www.afghan-german-telemedizin.de](http://www.afghan-german-telemedizin.de)



# German spine surgeon practises telemedicine in Afghanistan

As head of the Afghan-German Doctors Association, Dr Azim Mosafer, an Afghan-born German spine surgeon, is currently involved in a European-Afghani telemedicine project. The purpose of the project is to support his colleagues in Afghanistan throughout the year and to ensure that people living in remote regions will receive adequate medical services in the future.

How did you come up with the idea of a German-Afghani telemedicine project?

Dr Azim Mosafer: Since 2005 I have traveled to Afghanistan once a year for two weeks, initially with five associates, to provide medical care. However, as a result of the high security risks in Afghanistan, fewer and fewer of my colleagues were willing to accompany me. We also began to think about doing something more effective. Even within Afghanistan, people have to travel great distances and overcome geographic obstacles in order to obtain medical care. With telemedicine such geographic hurdles can be bypassed internationally, but also inside the country.

What would you specifically like to achieve?

Our priority is patient care with a focus on consultative patient examinations. Our Afghani colleagues will be able to introduce their patients to specialists in Europe using telemedicine technology. A company named TecArt provided us with the software for this. Our colleagues in Afghanistan can use an appointment calendar on a server to schedule an online consultation for their patients at a prearranged date. To allow the consulting physician in Europe to properly prepare, the doctors in Afghanistan will upload any available findings to the electronic patient file on the server. The consulting physician can advise prior to the consultation if additional information or results are needed. Oftentimes the case can then be resolved before the appointment. Otherwise the consulting physician can see the patient via

video-telephony during the online session. As a spine surgeon, for example, I will look at the gait pattern and have strength and aesthesia measured online.

What do Afghani doctors do if they have no Internet access?

In addition to the usual medical findings, they can also send us short films. We have supplied cameras for this. The film clips can be saved to the electronic patient file. As an example, I wanted to physically see a child who lives in a remote village and suffers from pronounced muscle spasms to assess the extent of the spasticity. The treating physician filmed the child and uploaded the video to the patient file allowing us to view it.

You just recently returned from Afghanistan where you performed a variety of surgical procedures. What role did the telemedical contact play before your trip?

To give you an example: I was introduced to a fairly young woman with lumbar spinal stenosis. She was unable to walk more than ten meters. She is a single mother of six children that she has to take care of. We operated on her and now she can walk again without any problems. We prepared the surgery in detail based on the information we obtained by telemedicine. We usually have to bring along virtually all the materials we need for a procedure, from sterile gloves, to materials for dural injuries, to hydrogen peroxide to control bleeding during surgery. Every operation is meticulously planned ahead of time and then we follow

a checklist. A lot of things we have to buy. Some companies have loaned us surgical instruments for the relief project, which is very much appreciated.

Telementoring and tele-education are some other possibilities of telemedicine. Are you planning something along these lines?

Consultation based on specific cases is an effective way of training in itself, of course. In a second step, we will transmit professional conferences, seminars or symposiums live to Kabul in English. However, it is very important to convey some basic know-how. For example, autopsies are prohibited in Afghanistan for religious reasons. To provide a good understanding of anatomy, we will make films of anatomy classes available in English.

Another vital issue is a correct orthopedic and neurological examination. To ensure that the results we receive from our Afghani colleagues conform to the findings we would obtain in a clinical examination in Europe, it is obvious that these physicians have to be able to correctly perform a standardized physical examination of their patients. Patient examinations can be practiced live by videoconference.

Other areas where telemedicine helped? Telemedicine allows us also to support the training of medical students. For example, in addition to the University in Kabul, there is also a medical faculty in Bagram. It is about 60 km from Kabul and the professors have to travel this distance every week in order to teach. We have agreed that starting in the spring of 2012, lectures will be transmitted via the Internet from Kabul directly to Bagram. We will provide the technical equipment for this.