

# Dentistry Khalid Khalaf

[00:00:00] **Swathi:** Welcome to Beyond Boundaries from the University of Aberdeen. I'm Swathi

and I'm Tamsin.

**Swathi:** Tamsin, how do you feel about going to the dentist?

[00:00:12] **Tamsin:** I love it. Ever since I was a child, when they'd give you a sticker, it just makes me very happy. What about you?

[00:00:20] **Swathi:** Mine's a bit traumatic.

**Tamsin:** You're not a fan?

**Swathi:** I am just overwhelmed when I hear the word dentist.

**Tamsin:** That's fair. I think quite a lot of people are like that.

**Swathi:** Well, we should mention that this episode does include descriptions of dental work, including dental work, gone wrong. So, if you're particularly squeamish, just like me, about the topic, you might want to listen to another Beyond Boundaries episode instead. There are plenty to choose from.

[00:00:45] **Tamsin:** But if you're still with us, we're going to be hearing from an academic at Aberdeen whose job is all about making people smile, literally.

[00:00:53] **Prof Khaled Khalaf:** My name is Khalid Khalaf, I'm the director of the Institute of Dentistry and my area of expertise is orthodontics. Braces. I spend most of my life actually trying to straighten teeth and provide a good smile. But I worked in a clinical academy where I teach and do research as well.

[00:01:12] **Tamsin:** How did you end up in dentistry? Was your passion always teeth?

[00:01:16] **Prof Khaled Khalaf:** I do like healthcare. I do like to look after people. And it started from my family, my own family and elderly relatives, and I do care about patients. And this is where I started to be health care providers.

And I think I've always been very good with my hands from very young age and academically good. So I see dentistry as art-meets-science, which really meets my aspiration. That's why I joined dentistry.

[00:01:45] **Swathi:** I've never thought about dentistry being somewhere between art and science. Uh, and I guess there's a lot of craft involved as well.

**Tamsin:** Absolutely.

**Swathi:** And it's not just about looking after physical health, right? The way our teeth look can have a big impact on the way we feel about ourselves as well.

[00:02:00] **Tamsin:** Yeah, for sure. And actually, that brings me on to something I was keen to ask Professor Khalaf about. The trend for so called Turkey teeth.

What's your views on that? What do you think are the main issues?

[00:02:11] **Prof Khaled Khalaf:** Yeah, I think, uh, first of all, the term Turkish teeth took its origin from, I think because Turkey is a common destination for dental tourism, where people try to travel abroad. to have dental treatment provided for them. People do that for two reasons, really, mainly.

Number one, I think people seek cheaper treatment because they cannot afford the same treatment provided in the UK. And secondly, they want to have a quick fix for their smile. Therefore, they try to seek a treatment approach. There are all sorts of problems with this, really, and people are not aware of it.

[00:02:50] **Tamsin:** So what are some of the main issues then?

[00:02:52] **Prof Khaled Khalaf:** I think the main issues to start with is it's quite important, before you have any treatment provided to your health, to be fully informed about what is it going to be provided to you - to know the risks and benefits, and that you provide informed consent is very essential for any health care provision.

I think when you seek treatment abroad, the majority of these treatment, they don't start with proper consultation where you meet with the health care provider, the consultant or the specialist, and then they go through with you what's entailed in the treatment, risks, benefits. And they even ideally showcase similar conditions.

A lot of these treatments start with consultation over the phone or via Skype and with the language barriers, which is very difficult to be informed, especially (when they) use a lot of jargon. Even people in their own language to explain it in a language they understand, it can be quite challenging. So in a foreign country, speaking a different language, it can be very difficult to explain all the details and the nuances of such complex treatment and fully understand what is involved.

[00:04:06] **Tamsin:** And that's before you even get there. So what can the process be like once you are there? What are these actual 'Turkey Teeth'?

[00:04:13] **Prof Khaled Khalaf:** I think people, they go for a holiday and enjoy themselves. And they think that "in the meantime, I am there. I could get my smile fixed". And before they go, they normally identify a clinic where they provide such treatment.

So when they go there, a lot of this treatment, actually, when they meet the dentist, they don't have like separate consultation. They will be the dentist and straight away they will start the work after a brief discussion. And quite often the assessment is provided very quickly in a very short period of time. And when I think they refer to 'Turkish Teeth' is either veneers or crowns, which is really caps to cover the teeth to change the smile by changing the shape, size and colour of the teeth.

This normally takes a few visits here in the UK, starting with a consultation and then after that, starting with the preparation. So over three, four visits to complete a veneer or a crown. When it's done very hastily in a rushed manner - some of them actually can be done in 24 hours, which is very, very quick, really, and it has to be then compromised about the standards and the quality of care provided.

And the other thing as well, this very delicate procedure to do, because normally they try to trim the tooth to reduce some of the outer layer of the tooth, and then they take a mold for the teeth, and then they provide the artificial replacement of the natural tissue of the tooth, which has been removed either veneer, which is a very thin layer placed on the outer surface of the tooth or a crown or a cap to cover the whole tooth.

Normally, actually, for a veneer, we remove about a very, very thin layer off the enamel, which is about half a millimetre as a maximum. But if this is done much more, much more of the tooth surface being removed, the tooth will become sensitive because the layer under the enamel called dentin, and this is

actually a sensitive layer, and if it's well over-prepared, can get very close to the nerve, and then the nerve can die. And then the patient may require root canal treatment in the future, so you can see that there's a lot of risk involved if not done properly.

[00:06:36] **Swathi:** Well, if you ARE squeamish about all this, we've probably lost you by now.

[00:06:43] **Tamsin:** So essentially they shave down the surface of the teeth so there's just little stubs left and then put fake teeth on top. Just to create a new smile. Is that purely for aesthetics then and just how it looks usually?

[00:06:55] **Pro Khaled Khalaf:** Yeah, what you are referring to when they shave off the whole tooth and they leave little stumps, this is to fit a crown, which is a cap which covers all the surface of the tooth.

In fact, one of the problems, some patients, they think they are getting veneer, which is a very thin layer, like a nail, really, like fingernail on the outside on the surface of the tooth. But actually, they may do actually a crown for them. But they didn't know that. And from health care point of view, they should only do it in certain cases.

For example, for discoloured teeth, for teeth which have odd shape and form, for teeth which are actually chipped or broken, or sometimes you have very small teeth and actually, restoring their form requires a veneer or a crown. For these actually, this can be useful because you return the optimal form and shape.

But if it's done for a normal looking tooth, just only that the patient wants them to be whiter, this can be really damaging because this has been the main reason cosmetic reason. And there are other methods actually before we use veneer or crown to make them look a little bit brighter.

[00:08:09] **Swathi:** I was just thinking people are just damaging the normal teeth to have a normal look, I don't know, doesn't make sense to me.

[00:08:16] **Tamsin:** I have seen a few people that have had it done just in the passing and I don't think it ever looks authentic. Like, it definitely looks fake.

**Swathi:** It sounds torturous too.

**Tamsin:** Yeah. All the stages to get to the point of a crown. How dangerous is that?

[00:08:32] **Pro Khaled Khalaf:** I think the cap themselves, as I said, if the tooth is over-prepared, this means significant amount of the tooth tissues have been removed, then, uh, the patient may have tooth sensitivity and the nerve may die, and then, uh, The patient may require root canal treatment.

Again, if the tooth is overprepared, there's high risk for the crown to fall off because not enough retention and all the problems which come with that.

[00:09:00] **Tamsin:** You mentioned that people go on holidays to get their new smile and because it's cheaper. But is it also because it's quicker to access than it is here? Can people get it done faster than they could if they stayed at home?

[00:09:14] **Pro Khaled Khalaf:** Yeah, I think you're absolutely right. One of the main reason is that; to get quick fix. Now there are various health care providers in dentistry here where they can get the treatment. The only thing - under the NHS, they only provide cosmetic treatment if deemed clinically required.

So there is limited access here for pure cosmetic reasons. However, there are many providers where they can provide them. Private providers on the prices can vary from one to one. Some of them can be affordable, actually, but really, in the long run, if at all possible, see for ... and even I'm not sure about the cost even will be cheaper abroad, especially if not provided by a very good dental clinic.

And we're not saying actually abroad all dental clinics are bad. Some of them are actually very good. But there's no doubt a lot of them, they don't have the same standards like we have in the UK. And I think the other things here to remember as well; the protection actually. In the UK, patients are protected against medical dental negligence. We have various bodies to resort to, whereas abroad, actually, certainly they have far less protection. In the case of anything going wrong is very, very difficult for the patient to know where to go to.

[00:10:32] **Tamsin:** In the case that things do go wrong, does that mean the people come home here and have to come to people like you to get everything fixed?

[00:10:40] **Pro Khaled Khalaf:** Unfortunately, this is the case. The majority of them, they come back home and they go to the dentist. And the other issue actually, some dentists actually, they wouldn't be prepared to touch any cases where they feel botched cosmetic treatment has been provided because they think a lot of problems may emerge, and the minute they get involved, they will

have responsibilities. Some of them will be very reluctant to be involved. But there are some practices. They're happy to look at these cases and try to rectify them.

[00:11:10] **Tamsin:** And have these botched jobs been on the rise lately? Has this been a growing trend recently?

[00:11:16] **Pro Khaled Khalaf:** I think so. For many reasons. I think during COVID there has been backlog of many cases to see in the UK.

Access to dentistry, again, there's an issue with that across the UK. And because of this, I think people resort to seek treatment abroad to get quick fix.

[00:11:33] **Tamsin:** So your specialty yourself is orthodontics. That's braces, right? Tell me a little bit more about that?

[00:11:39] **Pro Khaled Khalaf:** Yes, orthodontics is, this is the branch of dentistry where we try to improve the function and the aesthetic of the top and bottom teeth, and the function and appearance of the top and bottom jaw.

I am a consultant, I work at a dental hospital here, so I only see complex cases. Cases where the patients need hospital setting, multidisciplinary care, where they require braces, plus surgery or plus other input from other health care providers and dentistry like restorative dentistry, paediatric dentistry, patients with special needs and with medical problems.

So people who require hospital setting are referred here to the dental hospital to do ortho treatment. There are high street orthodontists where they see simple cases where people require only brace work. So yes, my speciality is actually we try to improve the smile of patients by moving teeth around to provide them with a good smile.

[00:12:44] **Tamsin:** So using your own teeth to make the smile better rather than anything fake or forced in a way.

[00:12:50] **Pro Khaled Khalaf:** Yes, I am with the view actually that nothing is better than a natural tooth. So we try to restore any natural tooth no matter how damaged it is. But of course there are some cases the tooth can be not restorable. So unfortunately, these cases they have to be replaced with prosthetic teeth, but generally is if you maintain the natural tooth, that will be the best outcome.

And in orthodontics, we try to move the natural teeth around and to provide the patient with good function and aesthetics.

[00:13:25] **Tamsin:** In terms of teaching, because you mentioned that you teach the next generation, what's involved in that? Do they get hands on experience? Is it all textbook type stuff? What's the process for students?

[00:13:36] **Pro Khaled Khalaf:** Dentistry, we've got here actually a programme, BDSA program, to train future dentists. And our programme here is a bit unique actually, because it's a graduate entry BDSA programme where our students here, they have to have completed before they joined our programme an Honours degree before in basic sciences, and then they apply to join our programme. There are three programmes in the UK. We are one of them. We are a graduate entry programme, four years. The conventional dental programme is five years, but we are really, we combine the best of both worlds. A condensed graduate entry programme run in a conventional dental hospital and school.

[00:14:22] **Tamsin:** Okay, let me check I've got this right. If you're interested in studying dentistry at Aberdeen, you must already have an undergraduate degree in a science subject. Then you can apply to go straight into the second year of the five year degree.

**Swathi:** Exactly.

**Tamsin:** Cool. For somebody considering doing dentistry as a career and coming here to study, what would you say to them? What advice would you give or what selling points do you think there are for here?

[00:14:47] **Pro Khaled Khalaf:** I may be a little bit biased, but actually I try to be objective in my answer. So I think dentistry, first of all, is a health care profession. If you like health care, you like to look after people. That's actually a very, very good profession.

Secondly, I think in terms of job opportunities, there's an issue with access to dentistry across the UK, actually. And this is a profession where really, there is so many job opportunities where you can get a very satisfying job, where you change people's life, really. And I think thirdly, there are many areas where you can practice dentistry to meet your aspirations. You could practice as a general dentist where you treat patients from different backgrounds, people with different conditions, or you could specialise in one area and we have multiple areas of specialisation. When you finish dentistry, you could go further and do

additional few years' clinical training to become a specialist, or you could actually even work in clinical academia where you do dentistry and teach and do research. This is my - the pathway, which I followed. So there are many areas which is can meet your aspiration, even within dentistry.

[00:16:02] **Tamsin:** Just to finish up, what do you like most about being in dentistry and your current role?

[00:16:07] **Pro Khaled Khalaf:** I think, as I mentioned earlier, looking after people's health. This to me is very satisfying.

And certainly for me, I see young girls and boys, and some of them actually find it difficult to eat, difficult to smile. And after a course of treatment, I feel actually they come to me with a wide smile in their faces and with a lot of thanking words. And to me, you feel you are changing people's life, and that that's very, very satisfying to me.

Secondly, I think, in my job, my pathway as a clinical academic training a future generation, generations, to provide healthcare and dentistry, that's to me, again, very satisfying when I see my students down the line, you know, very successful, that's very satisfying to me. So it is, it is a very satisfying profession, certainly has been for me and for some of my colleagues, and I hope will be for people who are looking to embark upon a good profession.

[00:17:05] **Tamsin:** Huge

thanks to Professor Khalid Khalaf for speaking to us for this episode of Beyond Boundaries.

[00:17:11] **Swathi:** If you have been inspired to join the Boundary Breakers at Aberdeen University, you can come to one of our open days and see our historic campus. You can also download our digital prospectus at [www.abdn.ac.uk](http://www.abdn.ac.uk)

[00:17:26] **Tamsin:** And to hear more, check out the rest of the Beyond Boundaries podcast. Each episode discusses the groundbreaking research of one of Aberdeen's academics.