

Life of implants

We have received following questions regarding the life of implants.

Question 1

How long do implants last since patients start to bite after implant installations?

Answer 1

Life of implants changes depending on the three factors: characteristic of implant itself, reasons from patients, and clinical technique level of dentists.

First, implants have different characteristics depending on implant manufactures and a type of implants. Material or form or condition of surface treatment of implant changes when manufactures produce implants, moreover, by the relations between the jawbone* and gingiva* also changes the type of implants.

Life of implant is determined by the characteristic of implant body and relations between jawbone and gingiva.

This is the first big factor for determining the life of implants.

Secondly, life of implant is affected by the individual condition of patients.

For example, it is their health.

If a patient has diabetes and jawbone where implant is planning to instal, has low bone density*, in short, if bone is hollow or if jawbone is weak owing to the placement of denture for a long time, all of these reasons shorten the life of implants.

Brushing techniques and strength of occlusal pressure* also influence on the life of implants.

Thirdly, the quality of clinical technique by dentists determines the life of implants.

For example, about 80 kg of power would add to the tooth if he/she bites food strongly. Additionally, tooth rubs thoroughly to masticate at the upper and lower sides, the front and the rear, and left and right, repeatedly.

If implant was installed obliquely when it was supposed to place vertical direction that occlusal pressure adds to the tooth, implant receives surplus stress when a person bites, therefore implant falls out occasionally.

These three main factors determine the life of implants.

Pont 1: Life of implant is determined by three factors



- 1. Characteristics of Implants**
- 2. Condition of patients` health and occlusal pressure, etc.**
- 3. Clinical skills of dentists**

Question 2

You mentioned the life of 'one month implant' as 'long life implant' as well, but how long do you assume that this 'long life implant' would actually last? And also, how long do normal implants last?

Answer 2

'Long life' in 'long life implant' means that patients would be able to eat food normally and bite solid food to have fine diet with healthy teeth for over 20 to 30 years after the installation.

Patients who I have given implant treatments have been fine and this suggests the possibility for implants to last over 30 years, 40 years, and 50 years, until patients dies. This book`s title (lasts forever) is connected with Mr. Shinich Harada`s experience. By the way, normally, life of implants is said to be about 10 years.

Question 3

If so, this 'one month implant' is 'long life implant' and it means that the implant has three times or four times more life compare with normal implants when life of normal implants is said to be 10 years. Then why these differences occur? What is the reason for it?

Answer 3

Ok, let me explain four reasons why authors are saying 'long life implant'.

(1) I can give 'bio affinity power' as a characteristic of AQB implants that authors use.

If this implant is placed on the jawbone, a special extremely thin capsule for guided tissue (BAP layer, recrystallized pure HA capsule) absorbs much bone protein that has high affinity (osteocalcin, osteopontin, etc.)

This guides and takes osteoblasts in and density of calcium ion increases locally at the same time to activate the osteoblasts, therefore fit people only takes about two weeks and general people takes about one month to integrate implant with jawbone and bio bond strongly

Then the implant becomes one's own tooth.

This is the bio affinity power and the characteristic of AQB.

(2) The point is, body considers normal implants as a foreign matter, however this one month implants (AQB implants) have characteristic that to have bio affinity power for the body and the body consider the implants as a part of body, but not as a foreign matter.

This special characteristic lasts for over 30 to 40 years if patients are in good condition, therefore 'long life implant' would be born.

(3) By the way, bio affinity power and bioactive of implants is completely different from the characteristic of implants.

Even implant dentists misunderstand and are confused about the difference, therefore I will explain it for everyone to understand the difference.

This might be an expertise a little, therefore if anyone is not interested, please skip this part.

Glossaries

A Bioinert

This does not influence the biological tissues.

For example, alumina* is the representative of this material.

Initial implants did not ionize even in the biological tissue liquid, therefore the implants were used to make up for the fault which metal turn to ionize.

B. Bioactive

This influences the biological tissues and triggers the reaction.

Bioactive implant was born for the bioinert* materials such as alumina which was a material for initial implants.

Mainly, bioactive implants use hydroxyapatite* (HA) and calcium phosphate, etc.

This HA has weak mechanical strength by itself, therefore it cannot become an implant product. For the reason, plasma spray is performed to the titanium to adhere to produce

implants. By this procedure, titanium covers the mechanical strength and HA covers the contact with body to produce implants.

However, when HA is plasma sprayed, HA cannot maintain the characteristic of HA.

The heat which the plasma spray makes is extremely high and it reaches to about 10,000°C- 20,000°C, therefore HA would be decomposed.

As a result, HA turn into calcium oxide or hyaline.

When these decomposed substances are into the body, in other words, when implants are placed in the jawbone, the implants dissolute at early stage and increase pH of surrounding implants.

Dissolving in the body means, a capsule of HA coating becomes weak, in other word, HA coating disappears. As a result of this, implant fall out. In a word, life of implant shortens.

In regard to the method to produce HA implants by coating HA with plasma spraying, it cannot produce long life implants. Unfortunately, there is no other technique to make strong HA coating except the plasma spraying.

Moreover, there is also no technique to fabricate pure apatite which is the most important factor of biocompatibility.

These HA implants also change the environment of surrounding implant, therefore they have a bad influence on body as well.

The above mentioned items are the outline of bioactivation of generally commercialized HA implants.

I mentioned “a foreign matter” at question 3-2 and it indicate both bioinert and bioactive here.

C. Bio Affinity Power = BAP

A capsule of pure coating calcium phosphate was demanded in order to solve increase of pH which was the problem of bioactive implant and a problem of HA capsule dissolution. Therefore, third generation BAP layer implant was born to solve these problems. The new implant is called “AQB implant” by authors and it guides osteoblasts to integrate with bone.

(4) Advanced clinical techniques of authors which fit the individual circumstance of patients is the other reason. In regard to clinical cases of authors, we perform preoperative diagnosis of site of implantation by one patient at a time.

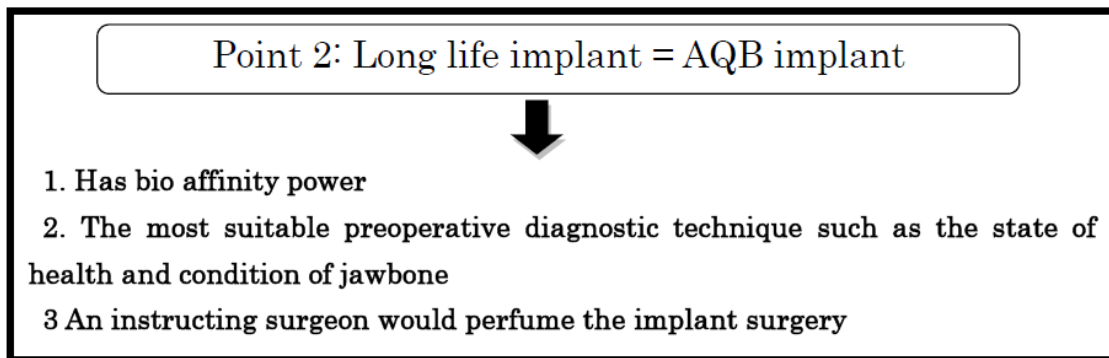
Implant specialists examine and decide what kind of operation is the most desirable and

what kind of length and thickness of implant is the best for the patient by looking at the CT scanner of the patient.

The state of health, condition of the jawbone site which is planned to implant, bone density, and occlusal power is different by patients to patients, therefore specialists decide the best plan to perform surgery.

In regard to the difficult implant surgery case, the skilled instructor surgeon would perform the surgery.

This influence the life of implant after implant installation.



Question 4

'Lasts forever' is the title of this book, but is there actually anyone who has lived well with 'one month implant'? If there is, is it possible to ask him/her to tell me his/her story?

Answer 4

You may well ask that.

I will tell you some patients' experiences and ask them to tell you the story in person. If anyone who wish to contact them, I stated the email address at the end of this book, so please utilize it.

Patients who have been using the one month implant which authors performed implant surgery have been fine and implant became their own tooth without exception. Moreover, they said that "Implant is much comfortable than own tooth".

Question 5

'Lasts forever' is the title of this book but do you think that every one's implants would last forever?

Answer 5

That is a good question.

First, about “every one`s implants would last forever without exception”, I believe that is true as a principle.

However when people have strong bruxism or have serious illness such as serious diabetes, their jawbone is often absorbed or bone density is decreased because of the illness, therefore implants may fall out on the half way.

In this case, patients need to have re-implantation, however implant would last long by recovery.

Experience of AQB part 2

“It has passed 21 years in a flash since AQB implant surgery. I still feel so great!”

Mr. Shinichi Harada, 53 years old, man.

I had an implant surgery 22 years ago, I was 31. At that time, I did not have any knowledge or interest in teeth. I assume that my daily maintenance of teeth was poor, so I tended to have dental caries since I was small, and I had already lost several teeth due to the dental caries.

I had a bridge denture that my dentist recommended as a treatment for tooth extraction site, but I did not ask any treatment for the molar tooth which was extracted at the end. It was just because I did not have any problem eating food and I had other teeth to make up for it, and it was molar so other people could not see it. Moreover, because I did not really feel any inconvenience and yes, I was busy so the treatment was the last thing that I could have done.

But I will tell you the truth, I just did not want to receive bridge treatment. Because for the bridge, even when both side of teeth that were placed next to tooth extraction site were healthy, they had to be grind down. Those teeth were prone to become dental caries and bridge only last for about five years, so I hesitated to scarify healthy teeth for the treatment of tooth that was extracted. I mean, I had few healthy teeth so I just did not understand the bridge treatment

At one time, my friend told me about implant treatment which was the latest treatment. I heard that implant is installed at the tooth extraction site without grinding other teeth which bride treatment requires and it would last quite a long time. But I had never listened or seen the treatment, so I was not in the mood of doing it. Therefore I

ignored my friend`s story.

After a while, my friend and I started to talk about the implant again. He told me that if I leave the tooth extraction site without any treatment, other side of the tooth falls and it would not be back to the original position, and teeth which are next to the extracted tooth tilts, so that set of teeth and appearance become bad, and teeth are prone to have dental caries. For all these reasons, he said I need to receive treatment as soon as possible. He was working for dental related business.

So, I started to think carefully about implant treatment.

I made up my mind and I went to the dental clinic that was introduced. A dental hygienist taught me about the brushing thoroughly several times, because mastering brushing teeth was necessary in order to have implant treatment. Thanks to the teaching, I have not had any dental carries after that.

Finally, my day of surgery came. That was the first surgery of my life.

I was anxious when surgery had started, but surgery had ended quickly that I was about to say “Really? Already?”, I did not feel any pain at all.

My doctor explained me that “Because I used AQB implant, wound would heal quickly and I can have superstructure in about one month and I will be able to bite with the tooth”, but my friend told me that “It would take about a half year to bite.”, so I went home while doubting my dentist`s explanation.

But my doctor was right. As he said, I was able to start to bite one month after the implant surgery. I did not feel like implant was in my mouth and I was able to eat well with implant as my tooth, so I was impressed.

During one month until the superstructure was placed, I had had many checkups in my mouth thoroughly and received treatments, and yes my brushing was absolutely great, and biting with implant made my mouth perfect. I felt that I was really healthy.

It has been 21 years since then, but my implant did not make any problems and it has not changed at all, I can say that my implant is part of my body and made me realize the happiness of being healthy and be able to eat every day.

Recently, I hear that the state of health in mouth and in the body is closely related.

I am a heavy smoker and have been smoking for over 30 years, so I regularly go to dental clinic for checkup and cleaning, but my implant is absolutely fine and I do not have any dental caries or periodontal disease.

I did not find any problems at my company`s periodical health examination, of course I am not obese. I am totally healthy.

I have never had serious illness. I assume that the state of health in mouth is related to the health of body a lot.

Since my implant is part of my body, I am sure that even 30 year s and 40 years, probably until I die, my implant would last.

I thank my friend who told me about implant and everyone at the dental clinic who used AQB implant and taught me.

Experience of AQB part 3

“My implant which gives me sprits”

Ms. Yoshiko Mayama, 68 years old, woman.

I am now 68 years old. I had an implant surgery at the age of 47.

It has been 20 years since then but nothing has changed. My mouth is absolutely great and healthy. I have total 13 implants at upper and lower jaw.

Food is fantastic and I can even bite solid food. I feel like I am actually eating food and I am enjoying my life. Of course I am fine.

A while ago, my dentist had called me for the first time in five years and had said “How have you been since the last checkup?”, so I went to see him for checkup.

My teeth were fine and he guaranteed that my teeth would be fine until I die.

I thank this implant now but I actually did not know anything about implant first and was not planning to have implant surgery.

I did not even know the existence of implant at that time.

I had a denture back then.

Maintaining denture was troublesome and I felt unconformable with it because food got caught between dentures, and pain. Therefore it was hard to eat food and I did not enjoy my meal.

When I went to a restaurant, if food was caught between dentures, I had to go to a restroom stealthily to wash my denture and rinse out my mouth.

At the vacation, I was not in the condition when I could just take my denture out, so I

really felt inconvenient.

Yet, while putting on and taking out my denture, it had started to not fit to my mouth so I had to have new ones and of course they cost a lot.

Moreover, dentist grinded both side of teeth which supported denture to keep bridge, so these teeth went bad as well.

My husband said to me that “I hear that new implant is on the market and everyone has started to use it, and you know what? People are happy that they are able to bite food in one month after the implant surgery. So why don`t you try that out?”.

Since my husband recommended me and I was not in the good mood of having denture, so I decided to have implant surgery because, you know I would be able to bite food within a month.

After the radiography and had an explanation of the condition of alveolar bone, dentist planed the treatment plan. I needed 13 implants so I had four surgeries.

I was worried about pain and a long surgery. I just felt a little pain when injecting an anesthesia needle but I did not feel any other pain, the surgery ended quickly. I remember that it only took less than an hour. The surgery was very simple so I was discouraged.

My husband asked me how surgery went when I came home.

So I said, “The surgery was simple and quick. I did not feel any pain and I just cannot believe that I was worrying about it ”. I also told him that my dentist said I would be able to eat whatever I wish to eat in one month and bite even solid food. My husband asked me “It did not hurt, really?” again. So I said “It did not hurt.”, then he said “Then maybe I should try that”.

My children said that “Dad wanted you to try first. He wanted to try implant but he thought that maybe it would hurt. That is why he perused you to try first. Now he found out that implant would not hurt so he is planning to have implant. He needed to try first to find out if implant was safe and would not hurt him, then he should have let mom to try implant. He is such a loser.” My husband`s stock had fallen because of my experience of implant.

I am dealing with serious connective tissue diseases for over 30 years, but thanks to the implant, food is delicious, I enjoy meal very much, I am totally fine, and spending

wonderful life.

My dentist told me that my implant as BAP and this implant was named after the bio affinity power that the implant has.

I experienced the bio affinity power and I feel that it is supporting my life.

The average life expectancy of Japanese woman is 86 therefore I have about 17 years.

While coping with connective tissue disease well, I hope to live well with this AQB implant which has supported and will have support me.

Of course I am fine and I will be fine because my dentist guaranteed that the implant would be fine until I die.

Thank you my dentist.

Question 6

I visited you today because my friend told me that she has a 'Magic implant'.

I told her that I have a loose tooth and it may come out, then she said "This dental clinic is the best for you", then she introduced me to your dental clinic.

She said "Right after my tooth was extracted, I let my dentist to install implant then I just felt like my new tooth developed right away".

Is it true that my new tooth would develop right after the tooth extraction?

If so, maybe a 'Magic implant' is not an exaggerate story.

Answer 6

It is a technique called 'Immediate installation after tooth extraction'.

It is a characteristic clinical technique of the one month implant. For this method, we use a hole (tooth extraction socket) at the site where tooth was extracted to implant.

Tooth extraction socket does not always have healthy periodontal tissues*, therefore we remove unhealthy periodontal tissues, clean the area to not cause infection, form planting hole, and then perform implantation.

Regarding the one month implant, newly generated bone are generated from both implant and jawbone sides, and the implant and jawbone integrate to become one's own tooth.

Place crown on the implant. Then the implant become like one's own tooth in about a month.

I think that your friend mentioned "my new tooth developed right away", because her surgery did not take the trouble to make a hole at the beginning and she did not feel any pain, Moreover about in one month, new tooth was placed for the replacement of the

original tooth, so she was able to eat.

Question 7

I would love to have that surgery as well. Would you tell me the detail of one month implant`s technique which installs an implant right after the tooth extraction?

Answer 7

Yes, of course.

(1) High bio affinity power which 'one month implant' has makes possible to install implant immediately after the tooth extraction.

This is the reason.

Like a magic, image that one`s own tooth develops in one month is the result of bio affinity power.

The one month implant is a characteristic that bio affinity power has realized.

Only bio affinity power which is the regenerative power of bone is possible to realize immediate installation after tooth extraction.

(2) Normally, the condition of jawbone after tooth extraction is extremely unstable and if the jawbone is untreated, bone might get thinner rapidly.

This is called bone resorption*.

However, 'immediate installation after tooth extraction' which uses the one month implant prevents bone resorption and it actively makes newly generated bone*.

The one month implant uses a hole which is produced by tooth extraction (tooth extraction socket) to form a planting hole, and use one`s own bone or artificial bone to fill up the clearance at surrounding implant if necessary, and install implant properly.

Then jawbone positively regenerates.

(3) The important point is to clean tooth extraction socket and to remove abnormal granulation* or bacteria which stays in the tooth extraction socket normally.

Without this treatment, immediate installation after tooth extraction would not succeed.

Also, initial fixation must be secured properly.

(4) The one month implant has a variety of implant model to fit the condition of each jawbones, therefore dentists can perform safe and secure surgery by understanding the condition of a hole which is made by the tooth extraction (Tooth extraction socket) of

patients and the condition of jawbone.

80 kg of pressure is added to the jawbone from a tooth by biting, but patients need to avoid the pressure to maintain the implants until one month has passed after the surgery.

As necessary, finish the surgery by fixing with an adjacent natural tooth and an implant, etc.

(5) Implant is generally a foreign matter, but the one month implant (AQB implant) actively regenerates bone from each biological tissue side and implant side to make bone tissues* rapidly.

For that reason, the one month implant which has bio affinity power is able to have a good reputation among dentists as an 'Immediate installation after tooth extraction implant'.

The implants have applied to many difficult cases.

