Prosthetics on implants is the final stage of the dental implantation procedure, but nevertheless, mistakes made at this stage can easily undo the success achieved during the surgical stage of implantation. As a result, already 1-2 years after installing a crown on a dental implant, inflammation may develop around it, accompanied by pathological resorption of bone tissue. As a result, the patient may end up with an unsatisfactory appearance of the gums around the implant neck, exposure of the metal neck of the implant due to gum recession, etc.

And if you contact your dentist with such problems, of course, no dentist will connect all this with poor-quality prosthetics. The dentist will tell you about the characteristics of your body, and that nothing can be guaranteed. But none of this is true. If, at the time of starting prosthetics, you had achieved excellent integration of the implant into the bone tissue, then the causes of all subsequent complications (subject to good oral hygiene) should be sought precisely in poorly performed prosthetics.

There are special devices that allow you to check the quality of implant integration/stability of the implant in bone tissue (for example, Periotest M). The measurement is carried out before the start of prosthetics, and we will clearly evaluate the quality of the surgical stage in numbers. In the future, this will make it possible to determine who is ultimately to blame for the complications that arise after prosthetics (the implant surgeon or the prosthetist and dental technician). If we are talking about immediate prosthetics immediately after installing the implant, then we will see whether its primary stability is sufficient for us to immediately put an immediate load on the implant.

Testing the stability of the implant before starting prosthetics will help avoid many complications. After all, when a crown is installed on an implant, it immediately begins to experience chewing load. If the osseointegration of the implant is weak, then the chewing load can lead to pathological bone resorption around the implant and gum problems. If the device shows poor integration of the implant, this will be a signal to the doctor that it is necessary to delay the start of prosthetics for another few weeks or a month.

Duration of prosthetics on implants –

Prosthetics on implants in case of partial absence of teeth is carried out only with fixed structures - crowns and bridges. But in the case of complete absence of teeth, implants not only allow you to obtain a completely fixed bridge prosthesis, but there is also the option of conditionally removable prosthetics (i.e., when implants are installed under a removable prosthesis - solely to improve its fixation on the toothless jaw).

The timing of prosthetics depends on a number of factors - 1) on the implantation technique, 2) on the density and volume of bone tissue in the implantation area, 3) on the choice of dental implant, 4) on the characteristics of the surgical preparation of the bone bed, 5) on the presence of concomitant diseases. Implantologists use the special term “load on the implant” to indicate the moment of fixation of crowns or prostheses on implants. The load can be immediate, early or late.

Types of load and timing of prosthetics –

 immediate loading (prosthetics immediately after surgery or in the first 72 hours),

 early load (interval from 2 to 6 weeks),

 late loading (between 3-6 months).

In case of partial absence of teeth, one-stage or two-stage implantation techniques are more often used - specifically with late loading on the implant. This type of load assumes that the crowns will be fixed within 3 to 6 months after the operation, but this is only if we do not need to do bone grafting. In such a situation, implant healing on the lower jaw will take about 3 months, and on the upper jaw – about 5-6 months. This difference in timing depends on the fact that the lower and upper jaws have different bone densities.

However, if bone volume was increased simultaneously with the installation of implants, the timing is shifted by several more months. But there are situations when increasing bone volume at the implantation site cannot be carried out simultaneously with the installation of implants. In this case, bone grafting is carried out in the first stage, in the second stage, after 5-7 months, implants are installed and, thus, the patient can receive crowns only after 1.5 years.

Below we will analyze in detail all the main options for prosthetics on dental implants (under conditions of immediate, early and late loading) - both with partial and complete absence of teeth.

Implantation with immediate loading –

Immediate-load implantation involves crowns or bridges being secured to implants either immediately after surgery or within the first 72 hours after surgery. Thus, it turns out that the process of implant integration (their fusion with the bone) will take place in full under conditions of chewing load. Accordingly, this increases the risks

, thereby increasing the requirements of the implantologist for the selection of implants, as well as the requirements for the density and volume of bone tissue in the implantation area.

1) Immediate load in case of partial absence of teeth –

Most often, this technique is used in the absence of 1 tooth in the aesthetic zone (most often in the area of the lower incisors). In this case, immediate loading assumes that a temporary crown made of plastic or composite material will be made and fixed to the implant within the first 2-3 hours after the operation. It should be noted that the temporary crown in this case is slightly removed from the bite so that the implant does not experience a pronounced chewing load.

The best option for a temporary crown would be a plastic crown made by milling (CAD/CAM technology). Such a crown will be as precise as possible, this will make it possible to form an ideal gum contour around the implant neck, and also reduce the risk of developing peri-implantitis. But temporary plastic crowns made from an impression or from a composite material have a lot of disadvantages in this regard.

Immediate load prosthetics are more often used for single missing teeth in the lower jaw due to the fact that the lower jaw has denser bone (types D1 or D2), which allows for good primary stability of the implant immediately after its installation. The upper jaw has softer bone types D3 or D4, and therefore a newly installed single implant will not have sufficient primary stability (24stoma.ru). Therefore, in the area of ​​the front teeth of the upper jaw, this method is used - when it is necessary to install several implants in a row + a temporary bridge is made.