

ABSTRACT

ADJUSTABLE SUPPORT FOR SOFT PALATE AND IMPLANTING METHOD THEREOF

An adjustable soft palate support and an implantation method are provided. The
5 adjustable soft palate support is a flat implant made of a material capable of being
implanted into a human body for a long term, including a hard palate connecting end and a
support. The support is a flat implant capable of being inserted into a soft palate, and is
connected to the hard palate connecting end. The hard palate connecting end includes a
connecting structure and an adjustment mechanism connected to a hard palate. The
10 connecting structure on the hard palate connecting end is configured to fix the support to
the hard palate, and the adjustment mechanism on the hard palate connecting end is
configured to control the movement or a curvature of the support or a lifting degree of the
soft palate. Since the hard palate connecting end is fixed to the hard palate, and the
support is implanted into a muscular layer of the soft palate, a relaxed and collapsed soft
15 palate and a root portion of a tongue are lifted by using the hard palate as a supporting point.
Since swallowing occurs frequently in a non-sleep state, the adjustment mechanism is set to
be in an on state, so that the support implanted into the soft palate can move with the
natural swinging of the soft palate, so as to reduce interference with swallowing; and before
sleep, a control key of the adjustment mechanism on the hard palate is pushed with a finger
20 or an apex of tongue to set the adjustment mechanism to be in an off state, so that the
support implanted into the soft palate can lift the soft palate, and change a central axis of
the soft palate during natural swinging by lifting the soft palate towards the tongue root, so
as to enlarge an airway of a pharynx during breathing, thereby achieving the objectives of
treating snoring and obstructive sleep apnea/hypopnea syndrome (OSAHS).

Fig. 5