All-on-4 Implant Dentures

The Ultimate Hygienic Implant Denture System is both Fixed and Removable and is called SynCone[®] 5°









This denture is made from acrylic resin and internally reinforced with cast metal, encasing four gold caps



All-on-4 Implant Denture made from the Ultimate hygienic and aesthetic material – Prettau Zirconia with Porcelain facings Made in Australia by Ceramist (Technician) Werner Sauer, Park Road, Milton, Brisbane



The contemporary All-on-4 system is Fixed and only removable by the dentist





Mostly only 4 cone abutments are used if spread apart and the bone density is optimal (The appearance of six cone abutments in the upper jaw is illustrated)

The advantage of cone abutments is that they are very easily cleaned with an ordinary tooth brush.

Each abutment is screwed securely to each implant fixture and this forms a join between abutment and implant fixture. This system allows the join between the cone abutment and implant fixture to be easily cleaned.

A "Fixed-Removable" SynCone Implant Denture is rigid and fixated onto the abutments by a sliding frictional fit of the gold copings onto the cone abutments (Similar to the principal of a retentive matchbox). But it is also <u>removable</u> which allows the implants at gum level to be thoroughly cleaned. Hence the longevity of this SynCone implant denture is more superior than Fixed Implant Dentures.

A "Fixed" implant denture is joined to implant fixtures and these joins cannot be cleaned easily as they exist under the denture, which the patient cannot remove. Therefore, Fixed implant dentures are not as hygienic and have a decreased longevity.



Cone Abutments with 5° taper makes the denture self retentive

• Cone abutments are used in lower and upper jaws. Always at least 4 in the lower jaw, 4 to 6 are recommended in the upper jaw. In the upper jaw, 6 implants are often required to prevent tipping of the implant denture when biting on the edges of the top front teeth.

• Also the upper jaw bone is more porous than the lower jaw bone and often for longevity 6 is recommended, particularly if the patient is a grinder/clencher. A CT scan of the density of the bone and clinical evaluation is required to determine if 4 or 6 implants are required in the upper jaw.





Laboratory Procedure After a Mould/Impression is Taken



A master model of the patients implants and gums is made.

The gold alloy cone abutments illustrated have been screwed into the implant replicas present inside the plaster model.





The 5° SynCone abutments illustrated are aligned parallel to each other



Fabrication of Gold copings to fit SynCone Abutments



Gold copings are made to fit over the SynCone abutments.

Two completed gold copings are illustrated on the lower right of the photo shown.



The gold copings are frictionally placed over the SynCone abutments A metal casting is made to fit over the

gold copings to secure them.





Gold copings have been frictionally placed over the SynCone abutments for verification of fit.





The cast framework is secured over the gold copings. The copings are then glued to the framework.









After securing the metal framework to the gold copings the retentive holes of the framework are ready for the pink acrylic resin of the implant denture



The SynCone Implant Denture



The Upper Implant Denture only covers the ridge of the jaw bone and not the palate.





The lower photographs show the retentive gold copings which are very easy to clean with an ordinary toothbrush.







The SynCone implant denture is usually made of pink acrylic resin and white acrylic teeth. If a patient wears the teeth away they can be easily replaced at nominal fee, because the denture is removable. However, if teeth need to be replaced for a "Fixed" implant denture the cost is considerably more as the process is complex.

The SynCone implant system can also use the Prettau Zirconia/Porcelain Bridge system which is more hygienic and aesthetic, but more expensive.

