

2013

Fast & fixed teeth for every patient using basal implants

By Dr. Ajay Vikram Singh



- *No more painful and expensive bone grafting procedures*
- *No more longer healing time and waiting for final prosthesis*
- *No more contraindications such as diabetics, smokers etc.*
- *Immediate loading (fast and fixed) fixed prosthesis in just 48-72hrs*
- *Possible for the patients with extreme bone deficiencies*
- *Longer life- don't take infection, no peri-implantitis, no crestal bone loss*
- *Load transfer to the strong and resorption free cortical bones*
- *No connection- No future screw losing problem*
- *Bendable- can be bended to make all implants parallel to seat multiple unit join bridges*
- *Smooth surface implants- resist micro-organisms to colonize on the surface*

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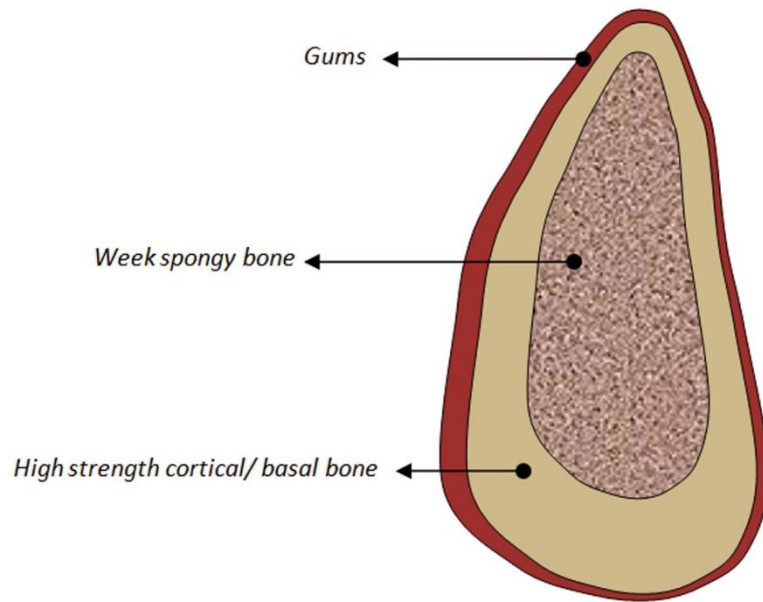


Fig.1 cross section of the jaw bone (lower front region)

Draw backs with conventional root form implant

1. Requires large amount of bone
2. Require wider bone at crest to accommodate its neck which usually found lacking in many cases because of bone loss (fig 2 and 3).
3. Mostly require bone augmentation procedures at the time or before the implant insertion which increase the cost, surgery time, no. of surgeries and treatment span (fig 2 and 3).
4. Most part of the implant is placed into the poor density spongy bone which cannot be loaded immediately- may require healing time upto 3-8 months (fig 2)
5. Because of vital structures such as maxillary sinus and mandibular canals in the back region of jaws, these implants may require large amount of bone augmentations (sinus augmentation, block grafting, nerve repositioning), multiple surgical steps, higher cost and longer healing times (fig 4 and 5).
6. Has a screw connection which may lead to future screw loosening/ screw breakage problems under the prosthesis.
7. Sensitive to infection- These implants have rough surface which is prone to collect infection once exposed to oral environment or placed at the infected region. Hence these implants cannot be placed into the infected tooth socket.
8. Being rough surface, these implants are prone to peri-implantitis
9. Crestal bone loss- maximum stress/ load comes on the bone crest which may cause crestal bone loss.
10. Wide neck diameter and rough surface of these implants require thick, keratinized and stable/non mobile gums around its neck to avoid the problems such as soft tissue

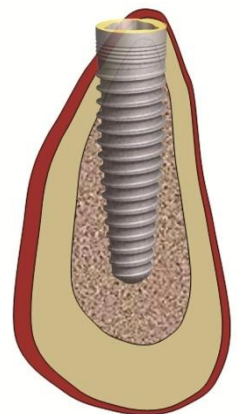


Fig: 2

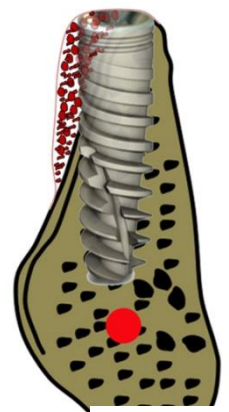


Fig: 3

recession, implant threads exposure, plaque collection, crestal bone loss and peri-implantitis (fig 6 and 7).

11. Higher failure (immediate or long term) rate in the patients with poor oral hygiene maintenance, smokers, diabetics etc.
12. Because of lower pitch value of threads and rough surface, may cause pressure necrosis of the bone if tightened at very high torque.



Fig: 4

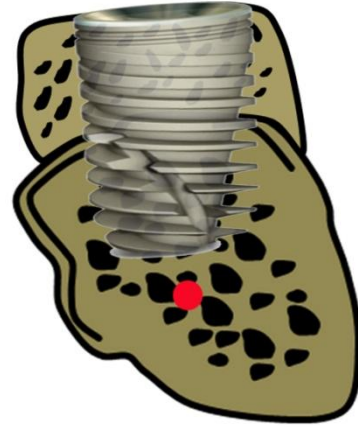


Fig: 5



Fig: 6



Fig: 7

Advantages with BASAL IMPLANTS

BOI (fig: 8) and BCS (fig: 9) basal implants are specifically designed to utilize strong cortical bone of the jaw. Hence these implants are considered to be the best option for immediate loading and long lasting satisfaction to the patient.

BOI (Lateral basal implants):- is inserted from the lateral aspect of the jaw bone and it require minimum bone height of 3 mm (fig: 8) and that means:

1. Virtually every patient can be treated without bone grafting.
2. Because bone grafting is avoided, also risk groups, such as smokers and diabetics, can successfully receive these implants.
3. Wide basal disk of the implant is stabilized into both facial as well as lingual strong cortices deep into the resorption and infection resistant zone (well deep from the crest) which guarantees safe load transmission and osseointegration.
4. Its iso-elastic (flexible) design make it possible to connect its prosthesis to the firm and healthy natural teeth in selective cases which avoid the necessity of extraction of healthy teeth and also save the cost of the treatment.
5. The neck of this implant can be bended to make multiple implant heads parallel for passive seating of the prosthesis and also to seat the prosthesis in the most suitable occlusion line.

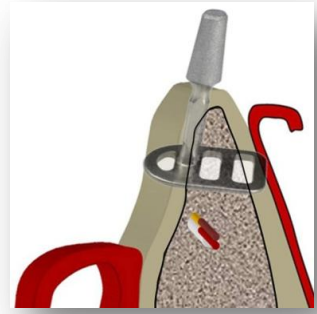


Fig: 8



Fig: 9

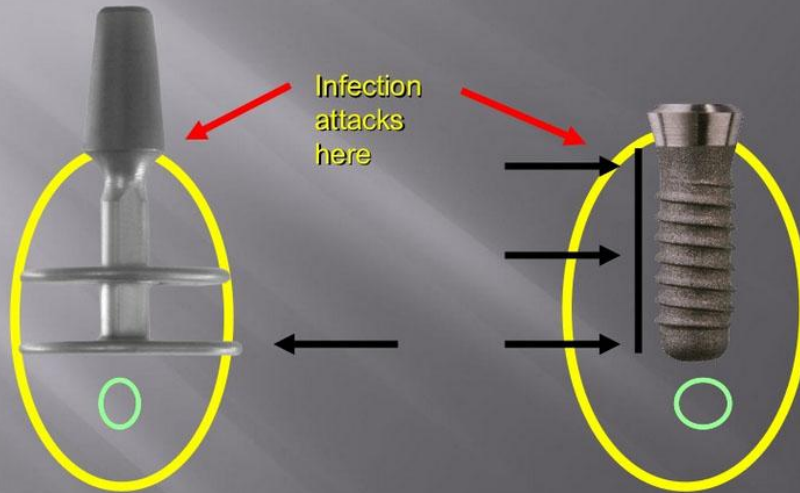
BCS (Screw Basal Implant): - is inserted like a conventional implant, but it transmits loads only into the opposing deep cortical bone (fig: 9). that means:

1. Virtually every patient can be treated without bone grafting.
2. Because bone grafting is avoided, also risk groups, such as smokers and diabetics, can successfully receive these implants.
3. Strictly cortical anchorage of the implant guarantees for safe load transmission and osseointegration.
4. Minimal invasive implant placement (Mostly without any flap and suture)
5. The neck of this implant can be bended to make multiple implant heads parallel for passive seating of the prosthesis and also to seat the prosthesis in the most suitable occlusion line.

Advantages of using BASAL IMPLANTS

(Courtesy- Dr. Stefan Ihde)

Advantage No. 1: Safe load transmission in the basal bone

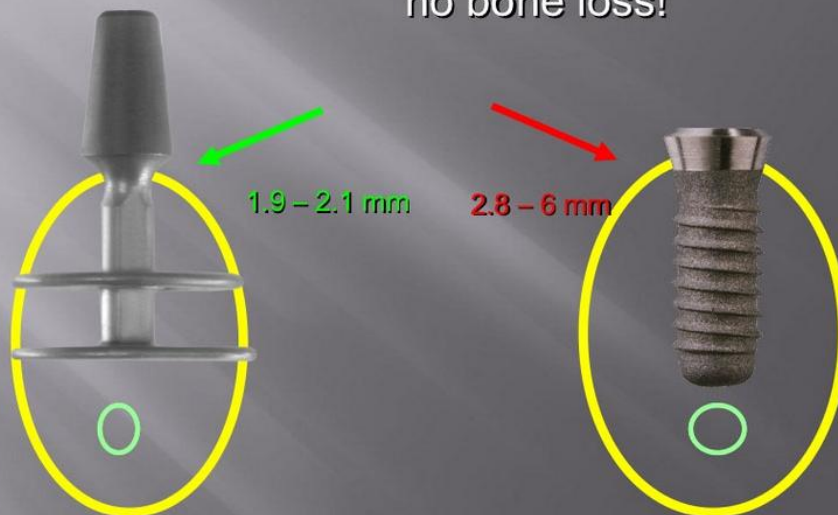


Basal implant: load transmission is deep in the infection free basal bone. Thats THE big advantage.

Conventional implant: load transmission is near the area of bacterial attack. Thats bad.



Advantage No. 2: Thin and polished mucosal penetration diameter: no peri-implantitis & no bone loss!



Advantage 3: BOI/BCS require only the patients own, residual bone for anchorage

This results in:

- Avoiding risky bone augmentations completely
- Avoiding the time delay caused by bone augmentations



Advantage No. 4: Immediate loading

This results in:

- No intermediate dentures, no edentulous phase
- No secondary operations
- Extremely good patient acceptance



Advantage No. 5: One simple and straight- forward surgical phase

- Extractions and implant placements on the same appointment and immediate placement of at least a provisional bridge. Patients are never without teeth
- Even if periodontal involvement is present, BOI and BCS implants can be placed immediately after the teeth and infected tissues have been removed



Advantage No. 6: Low demand for patient compliance

BOI & BCS implants provide thin and polished mucosal penetration diameters. They are virtually infection-free. Hence the demand for the patient's cleaning effort and compliance is reduced to an absolute minimum

Nevertheless regular control appointments and adjustments of the masticatory surfaces are necessary



Advantage No. 8: Large prosthetic freedom for the dentists technician

- Avoids hassles of the „emerging profile“-technology
- Small surgical errors in implant positioning don't threaten the aesthetic result
- Position of implants and prosthetics may differ

Results:

- Even skeletal discrepancies can be compensated easily
- Teeth may be positioned in regions where no bone is present. This avoids augmentations.



Advantage No. 9 : The intra-bony flow of liquids and blood is not prohibited

- the thin but well designed implant body allows good bone healing and osteonal remodelling
- On the polished implant surfaces no intermediate formation of woven bone is necessary: these surfaces are integrated right away

Result:

- the bone heals uneventfully, as if there was no implant present

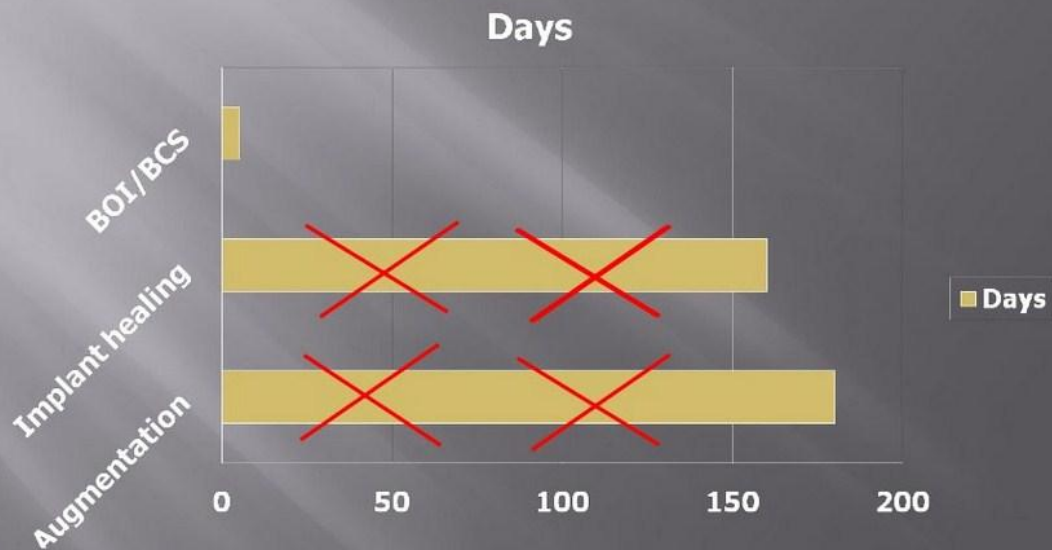


Advantage No. 10: No peri-implantitis

- Thin and polished mucosal penetration diameter prevents dangerous peri-implant infections

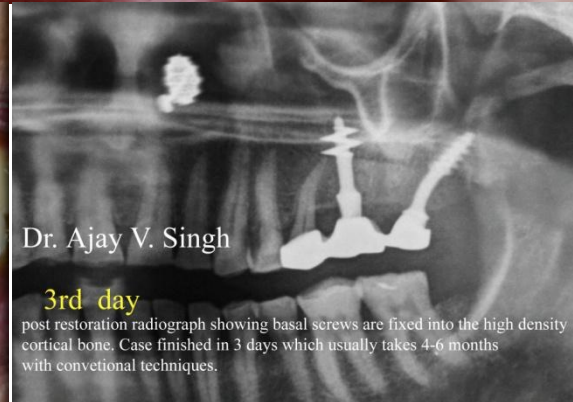
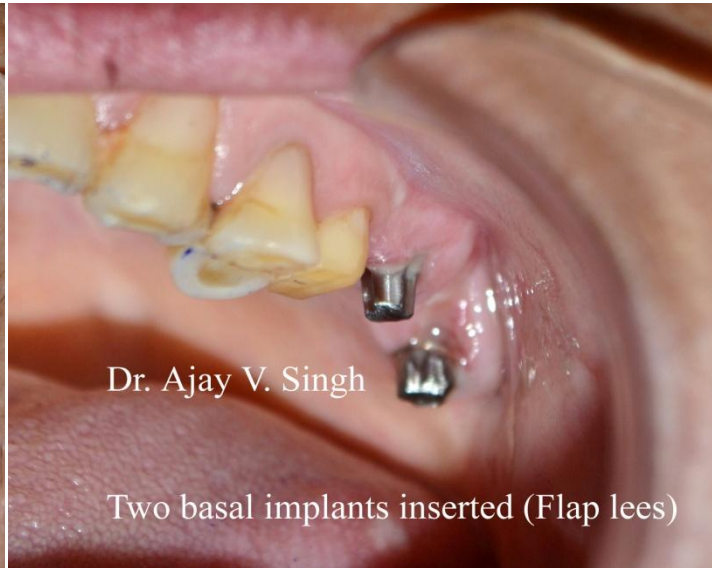
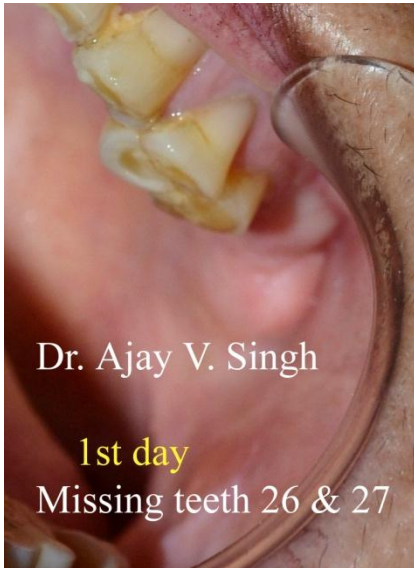


BOI/BCS save up to 98% of the treatment time:

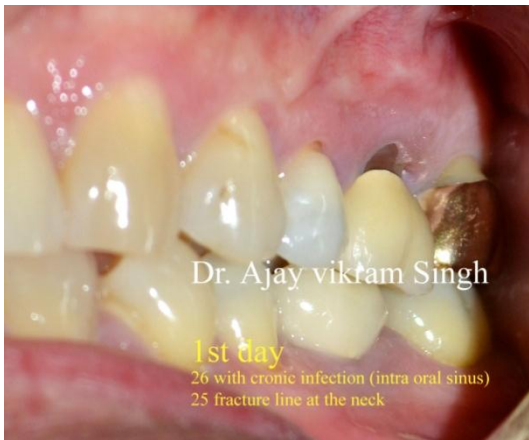


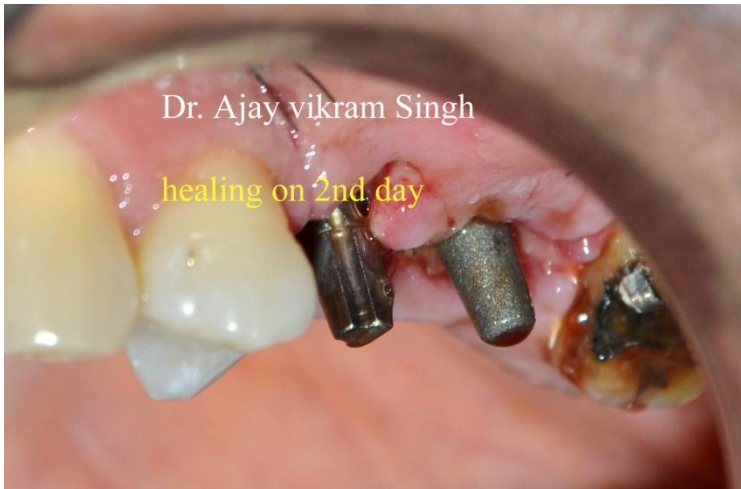
Courtesy for slides- Dr. Stefan Ihde (Ihde Dental)

Case 1- A 50 year old female patient came for replacement of her lost bridge for upper last molars with problem in chewing on that side. Two screw basal implants are inserted with flapless approach and restored in function within 72 hrs. Patient allowed chewing any food of her choice from very first day of restoration.



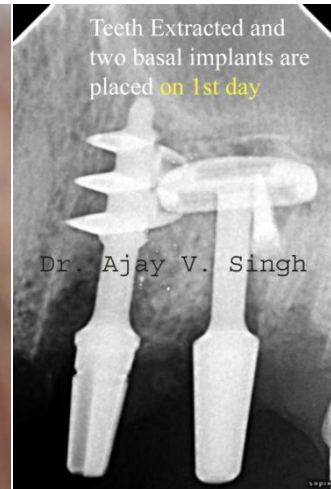
Case-2 Infected and fractured upper back teeth extracted and restored using basal implants in 3 days.





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healing on 2nd day



Teeth Extracted and two basal implants are placed on 1st day

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Post restoration clinical view on 3rd day

Patient allowed to chew anything he liked

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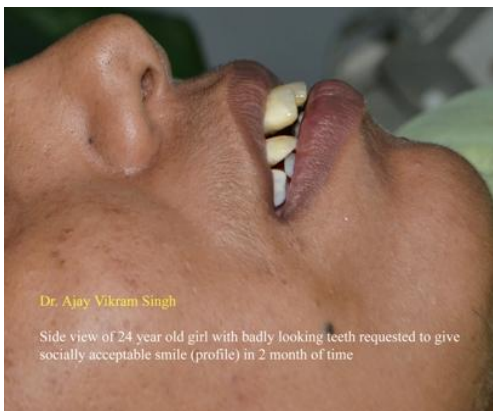
Patient recieved final crowns in 3 days on basal implants which usually takes 4-6 months when we use conventional implants



post restoration X-ray on 3rd day

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Case -3 A young girl with mobile, tipped ugly looking front teeth desired for firm and beautifully looking teeth before his marriege which was scheduled just after 2 months. Her front teeth extracted and basal implants are inserted immediately into the extraction sockets and immediately restored using fixed interim prosthesis so that patients walked out of the office with new set of teeth. The beautifully looking final ceramic caps are placed over the implants after 6 weeks to delever her the beautiful and confident smile.



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Side view of 24 year old girl with badly looking teeth requested to give socially acceptable smile (profile) in 2 month of time



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Extremely mobile Mal-aligned teeth



Teeth are extracted and basal screws are placed and stabilized into the deep resorption free strong cortical bone. Implants are immediately restored using a provisional profile prosthesis



Change in the profile can be seen on the first day. Patient left the clinic on the very first day with the new and better smile



Provisional teeth are removed to make the final teeth sets after the soft tissue got nicely healed and implants are integrated into the bone after 6 weeks



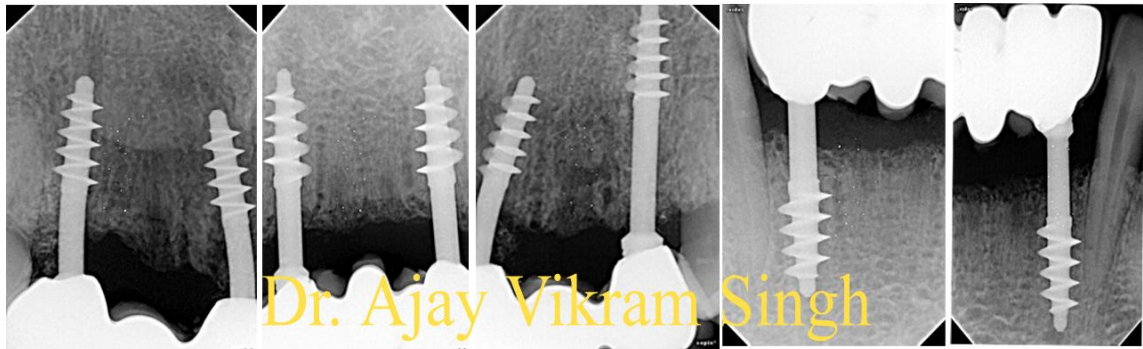
New sets of ceramic caps are fixed on the implants. (Before & After)



Nicely adapted gums and change in the profile can be noticed in before and after pics

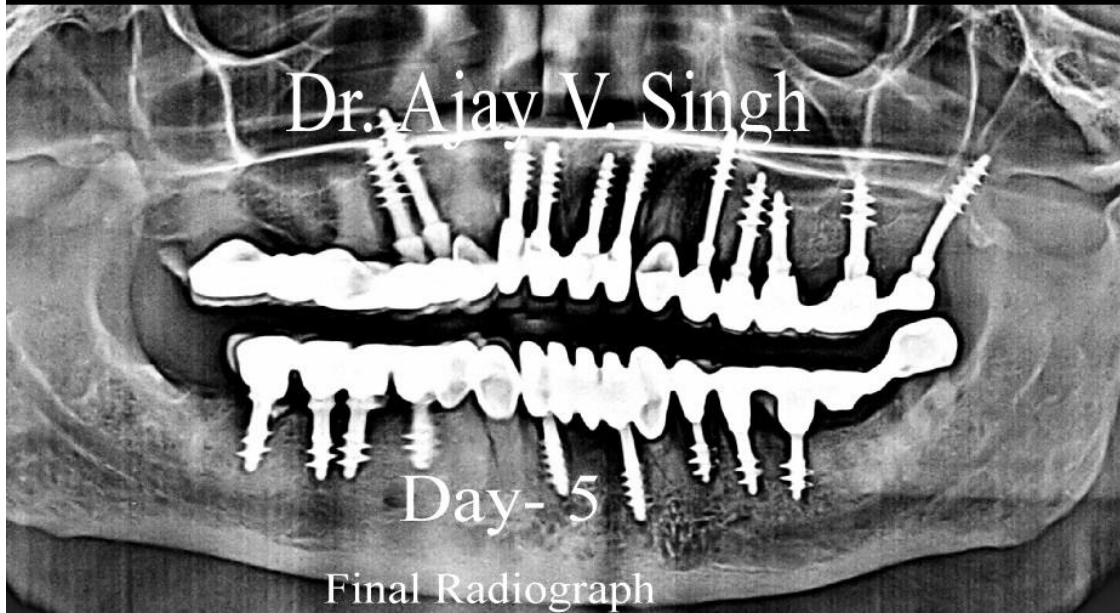
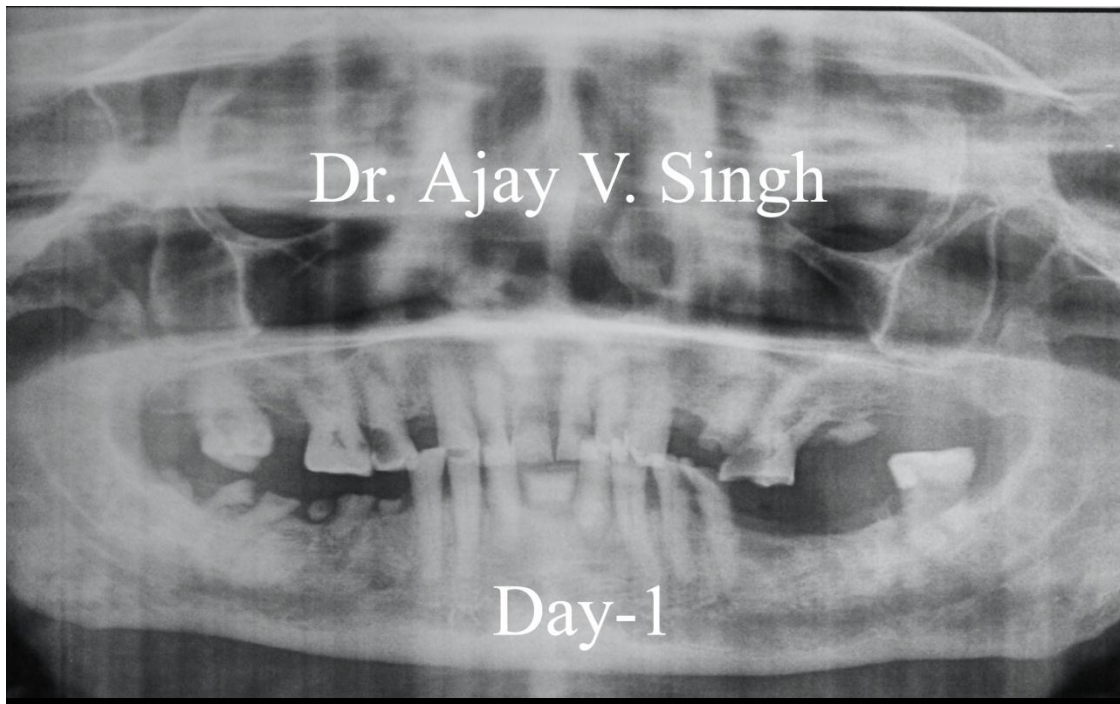


Before and after side views are showing nicely improved teeth profile.



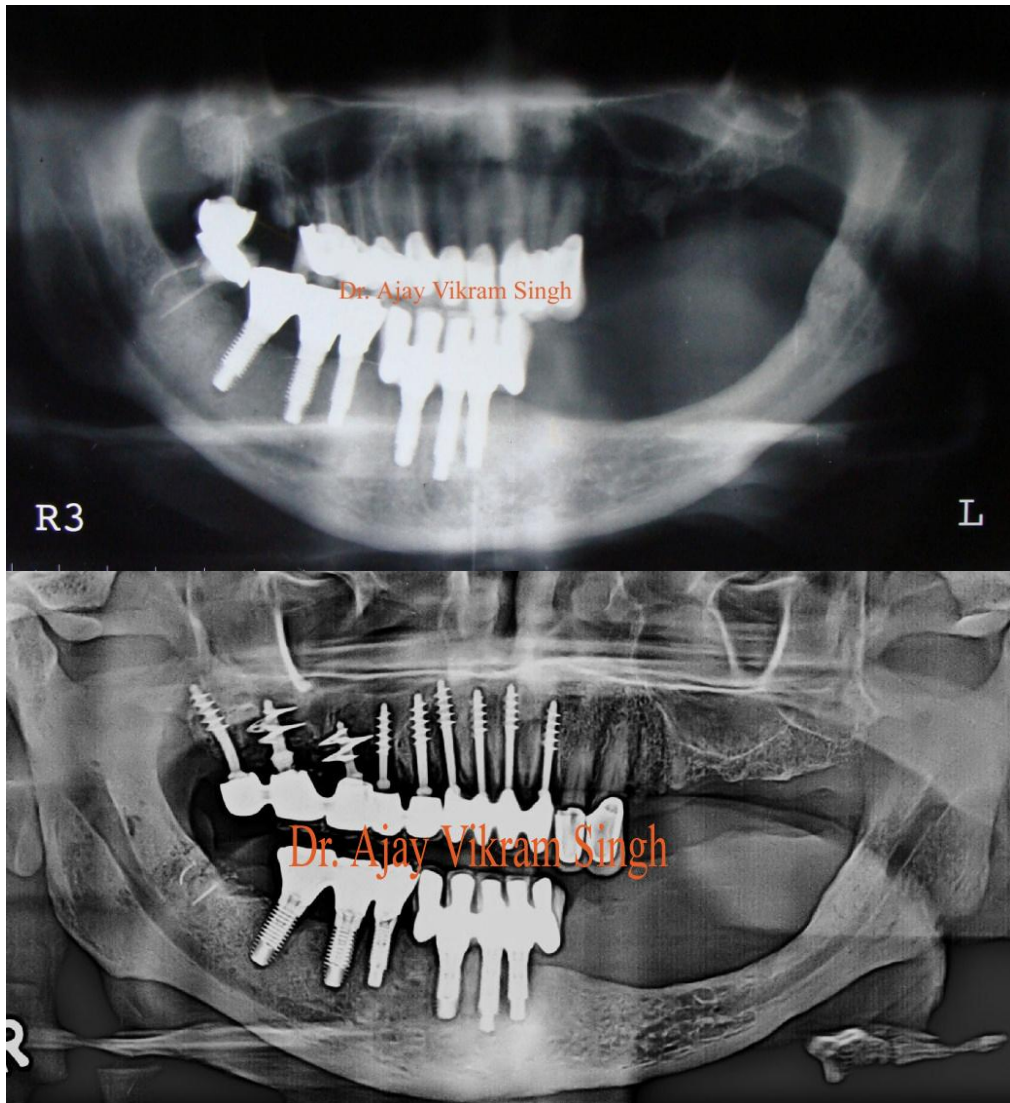
Post restoration radiographs are showing well integrated implants into the bone

Case -4 A 72 year old male patient presented for full mouth rehabilitation for his totally collapsed bite. Patient was diabetic and expressed desire for minimal invasive implants insertion and new fixed teeth over the implants within week of time. Considering his desires, age and diabetics, Basal implants inserted immediately into the extraction sockets without any incision and sutures and restored within a week of time using ceramic crowns. Patient enjoyed the food of his choice just after 5 days he consulted us for the implants.

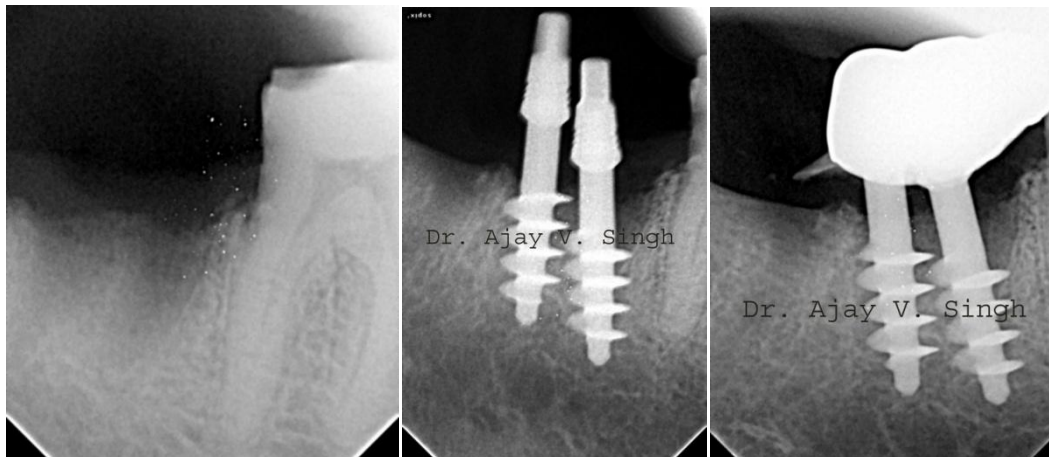


Case-5 A 65 year old male patient underwent jaw resection surgery for the removal of oral tumor about 10 years back. One year after the recovery from the surgery and radiotherapy he consulted us for the replacement of his lower missing/damaged teeth with implants so that he can chew the food of his choice. Lower implants are still in proper function. After almost 8 years, he can with the mobility and broken upper teeth and asked for the replacement but this time he requested for immediate loading option so that he can keep chewing food of his choice by avoiding to wear any removable interim prosthesis for couple of months till the conventional implants get integrated with the bone. This time we chose the basal implants to fulfill immediate loading desire of the patient. All the upper teeth extracted and basal implants are placed immediately into the extraction sockets. The impression for the prosthesis is made on the same day and new ceramic caps

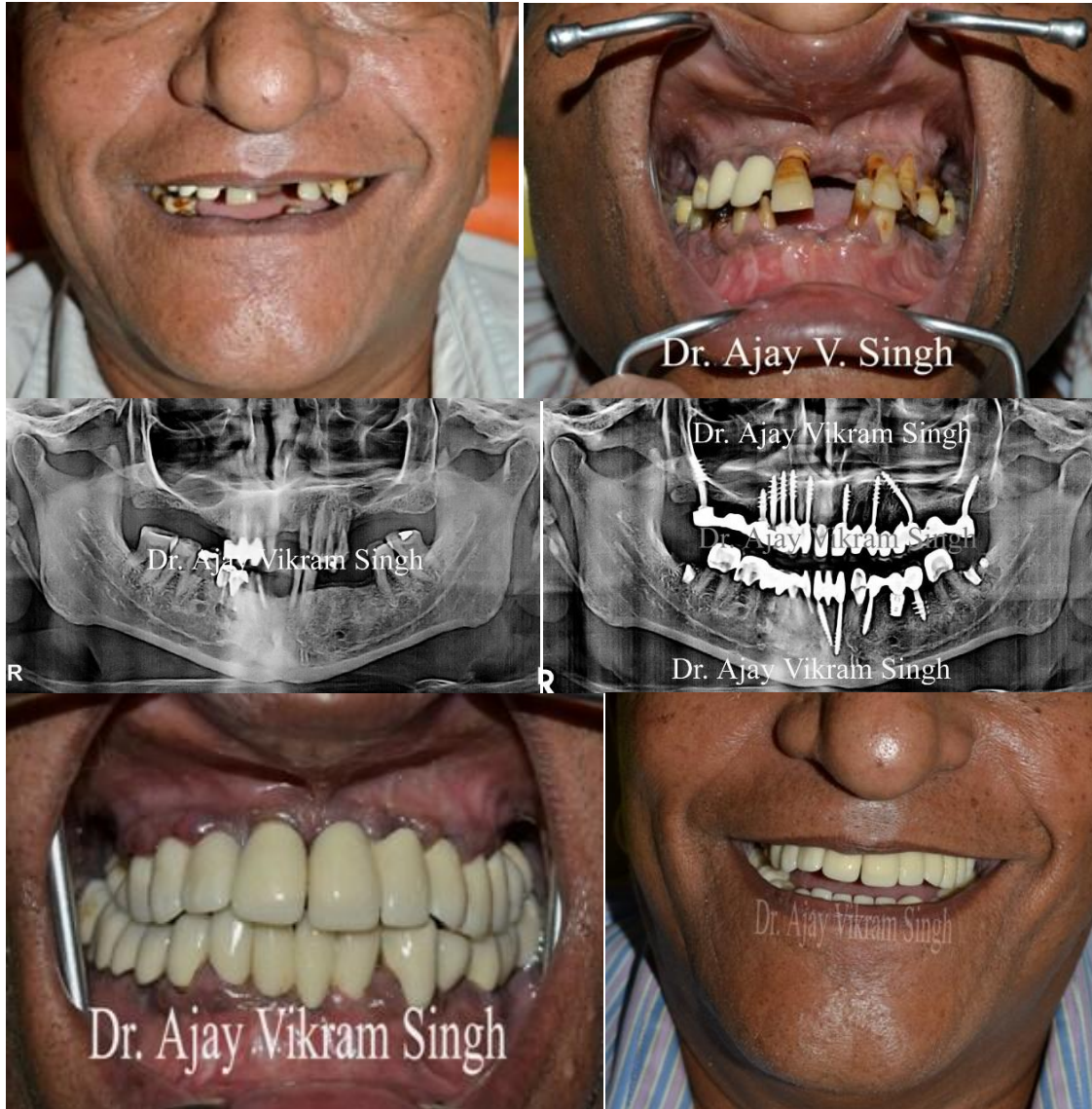
are fixed on the implants just after the 48 hrs. Patient allowed chewing any food of his choice on the same day.



Case-6 Missing molar replaced using basal implants in just 48 hrs (implant placement to fixing ceramic crown).



Case-7 full mouth case treated using basal implants and all implants are loaded with in a week of time.



If you need the similar kind of implant treatment, Pls contact us at-

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