

1
00:00:00.120 --> 00:00:01.170
Hey, what's up?

2
00:00:01.420 --> 00:00:02.650
I'm trying out a new format.

3
00:00:02.820 --> 00:00:05.230
I'm gonna do it this way just to see how
you like it

4
00:00:05.240 --> 00:00:07.650
Let me know I feel like it might be a
little bit more illustrative.

5
00:00:07.840 --> 00:00:10.790
So let me know what you think Okay, but
in this one, we're gonna be talking about

6
00:00:10.800 --> 00:00:15.630
restorative space
So I I choose this cover picture because

7
00:00:15.640 --> 00:00:20.930
I feel like we run into a lot of trouble
with the all in X treatment Because we

8
00:00:20.940 --> 00:00:25.690
try to fit too many things in a space
where they really shouldn't be so I'm

9
00:00:25.700 --> 00:00:29.590
gonna talk to you a little bit about
about how to Decide if you have enough

10
00:00:29.600 --> 00:00:34.970
space and what to do if you don't
So, let me move forward here All right.

11
00:00:35.200 --> 00:00:40.850
So this is a picture from Nobel biocares
System so you see right here.

12
00:00:40.960 --> 00:00:41.910
We have the implants.

13
00:00:42.020 --> 00:00:42.990
So I'm going to show you with my mouse

14
00:00:43.000 --> 00:00:45.450
here Hopefully you guys can you I'm sure
you can see that.

15
00:00:45.820 --> 00:00:51.530
So this is where the implant level is
Above the implant level we have the multi

16
00:00:51.540 --> 00:00:56.770
-unit abutments So here's this back multi
-unit abutment here are the straight

17
00:00:56.780 --> 00:01:00.450
multi -unit abutments in the front This
back one is angled.

18
00:01:00.700 --> 00:01:06.190
So the purpose of the multi -unit
abutment is twofold first you're raising

19
00:01:06.200 --> 00:01:11.670
the restorative platform from the implant
level to the tissue level and So what

20
00:01:11.680 --> 00:01:14.430
that does is it makes it a lot easier to restore?

21
00:01:14.740 --> 00:01:16.050
Because you're not going to be pinching

22
00:01:16.060 --> 00:01:19.990
the patient's tissues every time you go
to take an impression or to try things on

23
00:01:20.740 --> 00:01:25.650
The second thing that a multi -unit

abutment does is it changes the angle so

24

00:01:25.660 --> 00:01:28.230

you see back here We have a 30 degree angle implant.

25

00:01:28.440 --> 00:01:33.190

So this is a an angled implant and this multi -unit abutment corrects the angle

26

00:01:33.200 --> 00:01:38.350

So it's two things it brings it it brings the restorative platform up and it

27

00:01:38.360 --> 00:01:42.830

corrects angles when needed but you see we're trying to fit a multi -unit

28

00:01:42.840 --> 00:01:47.670

abutment the multi -unit abutment screw and then you're fitting the framework

29

00:01:47.680 --> 00:01:52.530

that's inside of this prosthesis and Then you're fitting the the stuff that goes

30

00:01:52.540 --> 00:01:56.170

over the framework just to make the make the teeth look pretty and to make the

31

00:01:56.180 --> 00:01:59.670

gums Look realistic and then you have these screws inside.

32

00:01:59.880 --> 00:02:03.230

So you see there's a lot of things that we're trying to fit into a small space

33

00:02:03.940 --> 00:02:05.050

Just to balance it out.

34

00:02:05.080 --> 00:02:06.650

I'm going to show you the the neodent

35

00:02:07.240 --> 00:02:08.190

Version as well.

36

00:02:08.320 --> 00:02:12.030

I'm not like dedicated to any one Company

37

00:02:12.040 --> 00:02:16.630

in particular is want to show you the you know how these two compare So with

38

00:02:16.640 --> 00:02:20.850

neodent so you have same thing you have the implants up here on top of that you

39

00:02:20.860 --> 00:02:23.650

have the multi -unit abutments This is a straight.

40

00:02:23.840 --> 00:02:26.450

This is the multi -unit I want to show

41

00:02:26.460 --> 00:02:29.690

you and this is the reason why I'm comparing these two these two different

42

00:02:29.700 --> 00:02:35.130

systems I want to show you what the Nobel multi -unit looked like and that's that's

43

00:02:35.140 --> 00:02:39.070

it right here Remember, we saw it in the previous picture and this is the neodent

44

00:02:39.080 --> 00:02:39.810

multi -unit.

45

00:02:39.860 --> 00:02:41.670

You see the neodent multi -unit is a lot

46

00:02:41.680 --> 00:02:46.870

more slim It doesn't have this corner on it It's got like this more like sleek

47
00:02:46.880 --> 00:02:51.630
kind of like wineglass Shape to it and
the reason that that's beneficial is

48
00:02:51.640 --> 00:02:55.210
because you're less likely to bind on
this bone

49
00:02:55.220 --> 00:03:01.410
See, so when this multi -unit abutment
goes into that implant one common problem

50
00:03:01.420 --> 00:03:04.490
one one thing that you have that takes a
little bit of time clinically when you're

51
00:03:04.500 --> 00:03:09.910
doing these surgeries is That this multi
-unit abutment is gonna bind on this bone

52
00:03:09.920 --> 00:03:14.130
That little angle is gonna push on that
bone and you have to get a bone profile

53
00:03:14.140 --> 00:03:19.450
burr and then and then adjust that bone
Away, that was a problem with multi -unit

54
00:03:19.460 --> 00:03:23.870
abutments that are shaped like this, but
the neodent design has this kind of like

55
00:03:23.880 --> 00:03:26.510
slim Profile to it.

56
00:03:26.580 --> 00:03:28.070
So it's a little bit easier to work on

57
00:03:28.080 --> 00:03:32.110
that and less likely that you have to
adjust away the bone But anyway, I just

58
00:03:32.120 --> 00:03:35.350

want to show you all the stuff that fits
into that restorative space

59
00:03:36.560 --> 00:03:41.650
This is a picture of a frame that I
actually had to cut I was working at a

60
00:03:41.660 --> 00:03:45.870
place that was doing a lot of all -in
-fours a lot of a lot of implants and

61
00:03:46.440 --> 00:03:48.650
They were getting a lot of complications, too.

62
00:03:48.960 --> 00:03:52.650
And so this particular case, it's You see

63
00:03:52.660 --> 00:03:53.750
these little cylinders.

64
00:03:54.060 --> 00:03:57.750
So these cylinders they They were not

65
00:03:57.760 --> 00:04:03.170
fully seating on all the implants Well on
one implant there was a gap and that

66
00:04:03.180 --> 00:04:07.010
doctor kind of like forced the cylinder
down with the screw

67
00:04:07.860 --> 00:04:12.030
So ideally what you want is for these
frameworks when you go to deliver them

68
00:04:12.040 --> 00:04:16.270
That they sit on all of the implant on
all the multi -unit abutments that they

69
00:04:16.280 --> 00:04:21.950
sit passively so that there's like no gap
Between the cylinder the prosthetic

70
00:04:21.960 --> 00:04:26.130
cylinder and the multi-unit abutment So
there's no gap but what was done in this

71
00:04:26.140 --> 00:04:31.230
case was there was a gap But the doctor
put the screw on and kind of like forced

72
00:04:31.240 --> 00:04:35.050
it down and then so that screw kept
breaking and kept breaking even After

73
00:04:35.060 --> 00:04:39.350
changing it multiple times so what I did
was I just kind of sliced this framework

74
00:04:39.360 --> 00:04:45.510
in half and Then I seated both pieces of
the of the framework and the patient's

75
00:04:45.520 --> 00:04:49.670
mouth I connected them with acrylic then
I sent it to the laboratory for laser

76
00:04:49.680 --> 00:04:53.290
welding and The patient didn't have that
same problem anymore after that

77
00:04:53.300 --> 00:04:56.470
But I just show you this basically
because I want to show you a cross

78
00:04:56.480 --> 00:04:59.330
-section this is the this is actually the
only time that I've actually sliced the

79
00:04:59.340 --> 00:05:03.490
frame in half and It was cool because I
get to see a nice cross -section of what

80
00:05:03.500 --> 00:05:09.330
what goes in there So with acrylic frames
what what can happen is if you if you try

81
00:05:09.340 --> 00:05:14.990
to fit too much stuff in there it makes
the acrylic too thin and then the acrylic

82
00:05:15.000 --> 00:05:19.950
will will like start crumbling and Once
your acrylic breaks and you try to repair

83
00:05:19.960 --> 00:05:25.190
it I mean, yeah acrylic is repairable But
it is more likely to break again and

84
00:05:25.200 --> 00:05:29.550
again and then you kind of like trying to
trying to solve you kind of like Chase

85
00:05:29.560 --> 00:05:36.510
the the cracks and it's really hard This
is a case that I did in my residency So

86
00:05:36.520 --> 00:05:42.470
this gentleman had I think he had like
three different prostheses made This is

87
00:05:42.480 --> 00:05:45.410
his third one and he's just like
crumbling it.

88
00:05:45.520 --> 00:05:49.410
He's this it's he's just going through it
and It's having a really hard time so

89
00:05:49.420 --> 00:05:53.810
this is you know, this is what you would
call in an acrylic hybrid It's got a

90
00:05:53.820 --> 00:05:58.210
titanium frame in the middle and it's got
acrylic wrapped around it

91
00:05:59.200 --> 00:06:01.670
All right, so I'll show you what it looks
like from the front.

92
00:06:01.820 --> 00:06:06.390
He's smiling he's actually a really
really nice guy and really easygoing, but

93
00:06:06.400 --> 00:06:11.930
he's really having a hard time with this
and I actually Chose actually requested

94
00:06:11.940 --> 00:06:14.270
this case because I want to know how to
troubleshoot these things

95
00:06:14.280 --> 00:06:20.210
So if you measure so I measured how much
space I had there and it looks like I

96
00:06:20.220 --> 00:06:26.250
barely had ten millimeters of restorative
space So I'm just measuring that from I

97
00:06:26.260 --> 00:06:29.590
guess where the incisal edges of the
teeth would be all the way down to the

98
00:06:29.600 --> 00:06:34.230
implant level
In this situation, I did not use there

99
00:06:34.240 --> 00:06:39.090
was no multi -unit abutment And so I'm
measuring from the incisal edge to the

100
00:06:39.100 --> 00:06:44.630
implant platform if there was a multi
-unit It would eat up some of the room so

101
00:06:44.640 --> 00:06:47.730
that's one reason why multi -units were
not used in this case

102
00:06:49.800 --> 00:06:52.670
So anyhow These pictures right here.

103

00:06:52.740 --> 00:06:55.210
Oops only moved me out of the way and so

104
00:06:55.220 --> 00:06:57.670
these pictures right here were published
by Lyndon Cooper

105
00:06:57.680 --> 00:07:00.170
and
They just show what happens when you try

106
00:07:00.180 --> 00:07:08.220
to fit too much stuff into too little of
a space All right, so the question you

107
00:07:08.230 --> 00:07:13.120
have to ask yourself is Does this patient
have 15 millimeters of restorative space

108
00:07:13.130 --> 00:07:18.600
so that's after you've already asked if
they have enough lip support and If they

109
00:07:18.610 --> 00:07:22.240
have a visible transition line The third
thing you're asking is do they have

110
00:07:22.250 --> 00:07:25.100
enough do they have enough restorative
space and with that?

111
00:07:25.410 --> 00:07:28.860
What that means for me is do they have 15
millimeters of restorative space?

112
00:07:29.430 --> 00:07:34.680
Now you're probably wondering like like I
I was wondering How do I even know if

113
00:07:34.690 --> 00:07:37.640
they have 15 millimeters of restorative
space to begin with?

114
00:07:37.650 --> 00:07:41.320

All right, so I'm going to tell you so the the only two ways that somebody can

115
00:07:41.330 --> 00:07:47.460
have 15 millimeters of restorative space to begin with is first if they're If

116
00:07:47.470 --> 00:07:51.960
they're a dentist and they have and they've already had some resorption of

117
00:07:51.970 --> 00:07:52.900
their Ridge, right?

118
00:07:52.950 --> 00:07:54.020
So if they're missing their teeth and

119
00:07:54.030 --> 00:07:58.620
they've already had some resorption The second way is if they're dentate so they

120
00:07:58.630 --> 00:08:03.700
have their teeth But they have a lot of perio related bone loss if they have a

121
00:08:03.710 --> 00:08:04.420
lot of bone loss.

122
00:08:04.550 --> 00:08:07.760
They might already have Their bone might

123
00:08:07.770 --> 00:08:10.780
already be at a level where you don't need an alveoplasty.

124
00:08:10.810 --> 00:08:18.660
You just need to remove those teeth All right, so let me just walk walk Through

125
00:08:18.670 --> 00:08:19.720
it with you just real quick.

126
00:08:19.890 --> 00:08:23.340

So this is a patient that has just been

127
00:08:23.350 --> 00:08:27.400
Indentulated right you can see that their teeth were we're just extracted and if

128
00:08:27.410 --> 00:08:31.440
this patient was restored with an all -in -four You won't have that much space

129
00:08:31.450 --> 00:08:36.060
Right you have you're gonna try to barely squeeze in their teeth and their their

130
00:08:36.070 --> 00:08:39.360
gingival Prosthetic in a really small space.

131
00:08:39.490 --> 00:08:43.120
So that's not gonna work But over time as

132
00:08:43.130 --> 00:08:48.440
their as their bone resorbs and they they acquire a composite defect So these are

133
00:08:48.450 --> 00:08:52.840
things that we went over previously But as they acquire a defect now you have

134
00:08:52.850 --> 00:08:57.460
more space and now you can restore with them with an all -in -four all -in -x

135
00:08:57.470 --> 00:09:02.880
type of prosthesis
Over time if they continue to resorb So

136
00:09:02.890 --> 00:09:06.480
if they're if they're not restored and they they they're wearing a denture for a

137
00:09:06.490 --> 00:09:10.280
long time and they continue to resorb
Then they have a really big composite

138
00:09:10.290 --> 00:09:14.940
defect and now it's a little bit of a
harder situation you see so

139
00:09:15.550 --> 00:09:18.740
This is the scenario that you run into if
you try to restore them with a fixed

140
00:09:18.750 --> 00:09:24.160
restoration with an all -in -x You can
have this little dip right here.

141
00:09:24.210 --> 00:09:25.240
We talked about it previously.

142
00:09:25.250 --> 00:09:26.920
That's a nasolabial fold

143
00:09:27.550 --> 00:09:31.240
They'll have this little dip right here
this little stair step and that could

144
00:09:31.250 --> 00:09:36.180
that could lead to an anesthetic result
And in those cases you might resort to

145
00:09:36.190 --> 00:09:42.720
conventional denture or an implant
supported over denture So all right.

146
00:09:42.850 --> 00:09:42.960
Awesome.

147
00:09:43.070 --> 00:09:45.840
So now how do you go about measuring the

148
00:09:45.850 --> 00:09:46.580
15 millimeters?

149
00:09:47.030 --> 00:09:48.600
So there's a few different ways to

150

00:09:48.610 --> 00:09:53.340
measure it the easiest way for me and the
way that I like to do it is I just take a

151
00:09:53.350 --> 00:09:58.920
cone beam and I just look at it in cross
-section and I just measure from the

152
00:09:58.930 --> 00:10:02.740
incisal edge I started the incisal edge
and I carry my little, you know, my

153
00:10:02.750 --> 00:10:09.720
little measurement tool apically until I
see that it measures 15 and That's and at

154
00:10:09.730 --> 00:10:12.680
that 15 millimeter mark That's where I
know that I'm going to be doing my

155
00:10:12.690 --> 00:10:16.000
alveoplasty to to create that 15
millimeters of space

156
00:10:16.010 --> 00:10:19.460
Now this is an estimation, right?

157
00:10:19.470 --> 00:10:21.280
Because like for example, somebody might

158
00:10:21.290 --> 00:10:24.660
say in the maxillary arctic the teeth
overlap, right?

159
00:10:25.350 --> 00:10:29.640
And so even if you measure from incisal
edge to the to where you're gonna place

160
00:10:29.650 --> 00:10:34.100
your implant If you measure 15
millimeters, that's not really how much

161
00:10:34.110 --> 00:10:38.740

room they're gonna have right because of the overlap 15 millimeters is an

162

00:10:38.750 --> 00:10:42.200

estimation There's probably other ways to measure too.

163

00:10:42.330 --> 00:10:47.560

That's how I do it and it's been a pretty convenient way so far to Make it just

164

00:10:47.570 --> 00:10:53.700

real easy for me to know how much I have to cut so After I measure at each

165

00:10:53.710 --> 00:11:00.540

individual tooth site or I guess in each quadrant or maybe two sites per quadrant

166

00:11:00.550 --> 00:11:05.240

I Reconstruct that cone beam into a panel, right?

167

00:11:05.290 --> 00:11:09.560

So I turn my cone beam into a panel a panel view and then I mark it up

168

00:11:09.570 --> 00:11:12.420

So this is don't be thrown off by all the colors.

169

00:11:12.490 --> 00:11:14.320

I just kind of mark it up real quick

170

00:11:14.330 --> 00:11:18.220

So that way on surgery day, I have something to refer to and it's really

171

00:11:18.230 --> 00:11:23.600

easy for me to know like what I was planning Previously, so I just mark my

172

00:11:23.610 --> 00:11:30.080

nerve right here All right nerves marked in yellow The implants are marked in red.

173

00:11:30.250 --> 00:11:32.940

So I just kind of estimate where I'm putting my implants.

174

00:11:33.070 --> 00:11:37.940

It's not super precise I do change my game plan intraoperatively, but this

175

00:11:37.950 --> 00:11:42.460

gives me an idea of where I was planning to put my implants and at what angle All

176

00:11:42.470 --> 00:11:48.320

right, and the purple shows where the big periapical apical infections are that's

177

00:11:48.330 --> 00:11:51.420

important because I'm not trying to place my implant into a Big periapical

178

00:11:51.430 --> 00:11:56.300

infection and I want to make sure that I debride that and I remove all that

179

00:11:56.310 --> 00:11:59.800

granulation tissue and all that infection From that site.

180

00:11:59.870 --> 00:12:05.020

So that just it serves as a reminder for me this green line is the alveoplasty

181

00:12:05.030 --> 00:12:10.180

line and These green numbers are the numbers that I came up with when I look

182

00:12:10.190 --> 00:12:18.150

at the cross -section How much I want to alveoplasty another thing you can do is

183

00:12:18.160 --> 00:12:21.970

you can mount your models and then your laboratory can measure 15 millimeters for

184
00:12:21.980 --> 00:12:25.030
you and they can Make a bone cutting
guide for you

185
00:12:26.400 --> 00:12:32.510
What I like to do is once I've decided
how much alveoplasty I'm gonna do After I

186
00:12:32.520 --> 00:12:35.310
pull the teeth, I measure with a periaprobe.

187
00:12:35.400 --> 00:12:36.910
You see my periaprobe right here I

188
00:12:36.920 --> 00:12:39.930
measure like if I wanted to do six
millimeters of reduction right here.

189
00:12:40.160 --> 00:12:46.130
I'll measure it and then I'll mark it
with a with either like a pencil.

190
00:12:46.400 --> 00:12:50.330
I'll mark it with the burr I'll mark it
with something so that way I know how

191
00:12:50.340 --> 00:12:55.330
much I have to reduce and then I'll go
ahead and take that bone Down with this rounder.

192
00:12:55.480 --> 00:12:58.110
I like to use the round burr round burr
is safer

193
00:12:58.120 --> 00:13:02.190
If you're just starting out, I know some
people use reciprocating saws Some people

194
00:13:02.200 --> 00:13:08.550
use a straight burr and just cut it off I
Think that the round burr is the safest

195
00:13:08.560 --> 00:13:11.450

The only thing the only downside to is
you get a lot of bone going everywhere

196
00:13:11.460 --> 00:13:17.870
So be sure to get your face shield to
avoid all that bone in your face all

197
00:13:17.880 --> 00:13:21.930
right, the the last little tip I'm gonna
give you for measuring restorative space

198
00:13:21.940 --> 00:13:26.790
is you can get a clear denture or You can
even get your regular denture that the

199
00:13:26.800 --> 00:13:30.570
regular denture that you're gonna be
delivering or converting that day You can

200
00:13:30.580 --> 00:13:35.850
have your laboratory mark it with a
permanent marker Right here on the side

201
00:13:35.860 --> 00:13:41.050
on the buckle or you know on the facial
aspect Where 15 millimeters of space

202
00:13:41.060 --> 00:13:45.590
coincides with or they can make a window,
so I'm not talking about this lingual

203
00:13:45.600 --> 00:13:50.230
window I'm talking about a buckle or
facial window so they can make a window

204
00:13:50.240 --> 00:13:56.130
just to show you how much you have to cut
So with that I'm gonna leave you with

205
00:13:56.140 --> 00:13:59.750
this right here the last question that
you're asking yourself is this is there

206

00:13:59.760 --> 00:14:03.510

15 millimeters of restorative space if
there is you can proceed with the

207

00:14:03.520 --> 00:14:08.330

treatment if there's not you need to do
alveoplasty to gain the space and I hope

208

00:14:08.340 --> 00:14:11.990

I Described how you can do that All right
moving on