

1
00:00:02.110 --> 00:00:07.460
Okay, so now you have your two anterior sites prepped with the two millimeter

2
00:00:07.470 --> 00:00:08.880
twist drills, right?

3
00:00:08.910 --> 00:00:10.080
We're not finishing these.

4
00:00:10.090 --> 00:00:15.720
We're not finishing these preparations or placing these implants until we find the

5
00:00:15.730 --> 00:00:20.140
posterior sites and find out exactly where our implants are going to go in

6
00:00:20.150 --> 00:00:21.440
these distal sites.

7
00:00:22.070 --> 00:00:27.740
So what you want to do is reflect the

8
00:00:27.750 --> 00:00:30.440
tissue back until you find the mental foramen.

9
00:00:31.050 --> 00:00:33.300
Now, you can use this periosteal elevator.

10
00:00:33.430 --> 00:00:38.400
I prefer to use a bigger periosteal elevator just so you reduce the chance of

11
00:00:38.410 --> 00:00:39.120
damaging the nerve.

12
00:00:39.890 --> 00:00:42.320
But you can just reflect back, just keep

13
00:00:42.330 --> 00:00:47.820

reflecting, reflect until you see that.

14
00:00:48.050 --> 00:00:50.840
It's not going to be as distinct on the

15
00:00:50.850 --> 00:00:51.840
live patient, right?

16
00:00:51.970 --> 00:00:53.020
Because you're actually going to have

17
00:00:53.030 --> 00:00:54.060
something coming out of there.

18
00:00:54.410 --> 00:00:55.760
You're not going to see a hole there.

19
00:00:55.810 --> 00:00:59.500
You're going to see like some tissue coming out of the mandible.

20
00:00:59.870 --> 00:01:03.740
And so you'll see it around this area right here, all right?

21
00:01:04.250 --> 00:01:10.560
And so obviously you want to make sure you avoid compressing or damaging any of

22
00:01:10.570 --> 00:01:11.700
the stuff that's in here.

23
00:01:12.130 --> 00:01:13.640
And so you're going to be placing your

24
00:01:13.650 --> 00:01:16.120
implant distally, right?

25
00:01:16.170 --> 00:01:19.020
So it's going to be like this, okay?

26
00:01:19.690 --> 00:01:24.600
And you got to keep in mind that
sometimes in the mental foramen or inside

27
00:01:24.610 --> 00:01:27.300
this area right here, there's an anterior loop.

28
00:01:27.310 --> 00:01:30.720
So the nerve comes from back here and

29
00:01:30.730 --> 00:01:31.540
exits here.

30
00:01:31.610 --> 00:01:33.020
But sometimes the nerve does a little

31
00:01:33.030 --> 00:01:36.340
curve anterior and then it comes out.

32
00:01:36.670 --> 00:01:38.180
So we want to avoid that.

33
00:01:38.350 --> 00:01:42.680
The average anterior loop is like two and
a half millimeters, something like that.

34
00:01:42.790 --> 00:01:46.680
So you do want to look at a cone beam
just to make sure what your patient's

35
00:01:46.690 --> 00:01:47.760
anterior loop looks like.

36
00:01:48.310 --> 00:01:52.920
But one rule of thumb that I use is to

37
00:01:52.930 --> 00:01:58.360
just place my implant so that it's kind
of pointed so that I'm aiming it six

38
00:01:58.370 --> 00:02:01.920
millimeters anterior to this, all right?

39
00:02:02.010 --> 00:02:03.540
So six millimeters anterior to this.

40
00:02:03.590 --> 00:02:04.460
You want to measure that out.

41
00:02:04.550 --> 00:02:07.120
If you have a perioprobe, you want to use that.

42
00:02:07.430 --> 00:02:08.780
I'm just going to use this right here.

43
00:02:09.130 --> 00:02:11.160
So six millimeters, I can kind of eyeball it.

44
00:02:12.230 --> 00:02:13.640
Six millimeters is like right here.

45
00:02:16.630 --> 00:02:18.900
And so what you can use, you can use a

46
00:02:18.910 --> 00:02:21.420
pencil, you know, sterilized pencil.

47
00:02:21.810 --> 00:02:23.200
You can use a surgical marker.

48
00:02:23.210 --> 00:02:29.040
What I'm going to use right now because
I've got it and just to make it really

49
00:02:29.050 --> 00:02:34.580
easy for you to see is I'm going to mark
with this little round burr six

50
00:02:34.590 --> 00:02:36.180
millimeters anterior to the foramen.

51
00:02:42.510 --> 00:02:44.760
All right, so I marked six millimeters anterior.

52
00:02:45.710 --> 00:02:51.440
And so now I know that I want to aim my distal implant towards this little

53
00:02:51.450 --> 00:02:54.040
marking, all right?

54
00:02:54.910 --> 00:02:58.480
And so what I like to do, if it was an

55
00:02:58.490 --> 00:03:05.000
extraction and implant placement site, I like to aim by using the extraction sites.

56
00:03:05.370 --> 00:03:10.380
So I might say, okay, I'm going to place it kind of through the extraction site of

57
00:03:10.390 --> 00:03:14.460
the canine or into the premolar and then it's going to go through the canine

58
00:03:14.470 --> 00:03:16.660
extraction site towards the apical portion.

59
00:03:16.930 --> 00:03:18.480
But in this case, it's a healed site.

60
00:03:18.650 --> 00:03:22.660
So I'm just going to place my implant straight in here and aim it right there.

61
00:03:23.530 --> 00:03:28.600
All right, and I want to be aware of this angle, the angle between these two.

62
00:03:29.150 --> 00:03:32.020
So let's go ahead and prepare this implant site right here.

63
00:03:32.790 --> 00:03:34.220
I'm going to switch off my drill.

64
00:03:34.610 --> 00:03:35.740
Give me just one second.

65
00:03:40.370 --> 00:03:43.460
All right, so now I got my lance pilot drill.

66
00:03:44.170 --> 00:03:46.920
And this part is, this part's very

67
00:03:46.930 --> 00:03:47.660
technique sensitive.

68
00:03:47.870 --> 00:03:50.080
You can use a denture guide.

69
00:03:50.210 --> 00:03:53.800
You can use a 3D printed guide.

70
00:03:54.050 --> 00:03:55.040
I mean, use whatever you want.

71
00:03:55.050 --> 00:04:00.220
I'm just telling you what, what I do and it's working out okay for me.

72
00:04:00.510 --> 00:04:03.980
But yeah, I would use, I would use like a clear denture guide.

73
00:04:04.050 --> 00:04:07.920
If you're just getting started, use a clear duplicate denture with a trough, a

74
00:04:07.930 --> 00:04:11.160
lingual trough, and then you're better able to approximate these things.

75
00:04:11.630 --> 00:04:14.140
So here's my side view.

76
00:04:14.450 --> 00:04:17.060
So I start it here and then I bring it up

77
00:04:17.070 --> 00:04:19.140
here just so I kind of confirm the angle.

78
00:04:20.990 --> 00:04:22.520
All right, if I place it like this,

79
00:04:22.890 --> 00:04:24.760
that's like a 15 degree angle.

80
00:04:25.050 --> 00:04:25.700
I don't want that.

81
00:04:25.830 --> 00:04:27.280
I want a 30 degree angle, right?

82
00:04:27.490 --> 00:04:28.980
Because you want to get as far distally

83
00:04:28.990 --> 00:04:29.560
as you can.

84
00:04:32.250 --> 00:04:33.780
So see right there.

85
00:04:34.890 --> 00:04:36.840
That looks like approximately a 30 degree angle.

86
00:04:37.090 --> 00:04:37.900
I'm going to get started.

87
00:04:38.490 --> 00:04:40.880
Remember, I'm getting started and then
I'm going to re-evaluate.

88
00:04:55.940 --> 00:04:59.670
So now that I prepped it, I'm going to
put this back in and I'm going to re

89
00:04:59.680 --> 00:05:00.830
-evaluate my angles.

90

00:05:02.940 --> 00:05:04.810
Okay, that looks like, I don't know, it

91
00:05:04.820 --> 00:05:07.050
looks like it could be like 25 degree
angle or something.

92
00:05:07.680 --> 00:05:09.170
But I think that's looking pretty good.

93
00:05:09.260 --> 00:05:12.470
Let's see if we're aimed towards that marking.

94
00:05:12.660 --> 00:05:13.710
Yeah, we're aimed towards that marking.

95
00:05:13.880 --> 00:05:15.950
If anything, we're just a little bit shy

96
00:05:15.960 --> 00:05:22.130
of, we're like a little bit even further
from the mental frame and the nerve than

97
00:05:22.140 --> 00:05:22.670
we need to be.

98
00:05:22.840 --> 00:05:24.130
But it's always better to play it safe.

99
00:05:25.500 --> 00:05:27.590
All right, so I'm going to go ahead and
keep preparing.

100
00:05:28.140 --> 00:05:30.750
I'm going to angle this just a little bit
more because our angle is just a little

101
00:05:30.760 --> 00:05:33.250
bit conservative.

102
00:05:34.400 --> 00:05:39.530
I find that, at least in my situation, I

103
00:05:39.540 --> 00:05:43.770
under -prepare the angles.

104
00:05:43.960 --> 00:05:45.910
What I mean by that is, when I'm aiming

105
00:05:45.920 --> 00:05:49.090
for like a 30 degree angle, I do like a
20 or 25 degree angle.

106
00:05:51.160 --> 00:05:54.610
All right, so let's go ahead and reflect
it back so you still see your little

107
00:05:54.620 --> 00:05:55.230
markings there.

108
00:05:57.260 --> 00:06:00.590
And, all right, ready, let's do it.

109
00:06:02.640 --> 00:06:03.950
I'm just going to take it a little bit further.

110
00:06:07.970 --> 00:06:10.220
All right, so that's looking better to me.

111
00:06:10.270 --> 00:06:12.600
So I'm going to take the twist drill now.

112
00:06:13.810 --> 00:06:15.760
And what you should probably do at this

113
00:06:15.770 --> 00:06:18.660
point is switch these front ones out.

114
00:06:20.950 --> 00:06:22.560
Switch these front ones out to

115
00:06:22.570 --> 00:06:26.080
paralleling pins because you need these now.

116

00:06:26.150 --> 00:06:27.420
You need the twist drills.

117
00:06:27.930 --> 00:06:32.160
So I'm going to take this out and put my
little parallel pin in there.

118
00:06:36.370 --> 00:06:42.740
Okay, and now I'm going to go ahead and
prepare this sight right here with a two

119
00:06:42.750 --> 00:06:43.600
millimeter twist drill.

120
00:06:55.240 --> 00:06:57.350
Trying to give you the best angle possible.

121
00:06:57.740 --> 00:07:00.870
We're trying to give you the best view possible.

122
00:07:02.580 --> 00:07:06.400
All right, I'm going to prepare this one

123
00:07:06.410 --> 00:07:07.560
for an 11 .5 as well.

124
00:07:27.660 --> 00:07:29.870
All right, so now you can evaluate the

125
00:07:29.880 --> 00:07:30.370
angle again.

126
00:07:31.320 --> 00:07:32.390
What do you think about that?

127
00:07:32.960 --> 00:07:34.230
Is that like a 30 degree angle?

128
00:07:38.470 --> 00:07:39.560
Yeah, all right.

129
00:07:39.630 --> 00:07:41.960

So let's move on to prepping the other side.

130
00:07:43.510 --> 00:07:47.380
So now I'm going to take my periosteal

131
00:07:47.390 --> 00:07:48.040
elevator again.

132
00:07:48.390 --> 00:07:49.220
Let me get this out of here.

133
00:07:49.890 --> 00:07:51.760
And take my periosteal elevator again.

134
00:07:52.490 --> 00:07:54.940
And I want to reflect this tissue back

135
00:07:54.950 --> 00:07:57.160
until I find the mental foramen.

136
00:08:00.570 --> 00:08:01.600
Reflecting it back.

137
00:08:02.950 --> 00:08:03.660
There it is.

138
00:08:04.550 --> 00:08:06.400
It's pretty obvious on this model again,

139
00:08:06.610 --> 00:08:10.180
but like I said, in a real patient you're
going to have stuff coming out of there

140
00:08:10.190 --> 00:08:11.180
and it's not going to be obvious.

141
00:08:11.470 --> 00:08:14.680
So the best way to find it is actually do

142
00:08:14.690 --> 00:08:20.180
not reflect here, but reflect in front of
it and behind it.

143
00:08:20.490 --> 00:08:22.220
And then this tissue is going to reflect fine.

144
00:08:22.330 --> 00:08:23.180
This tissue is going to reflect fine.

145
00:08:23.430 --> 00:08:26.460
And then you're going to find that tissue
right here, it stays kind of stuck.

146
00:08:26.590 --> 00:08:31.660
And you reflect more, you'll be able to
see distinctly that that tissue is stuck

147
00:08:31.670 --> 00:08:32.900
because it's coming out of the mental foramen.

148
00:08:33.770 --> 00:08:36.020
All right, and what did we say our rule was?

149
00:08:36.490 --> 00:08:43.560
We're placing six millimeters anterior to
the mental foramen to try to avoid any

150
00:08:43.570 --> 00:08:45.120
anterior loop complications.

151
00:08:45.870 --> 00:08:47.300
But again, I'm just going to say it again

152
00:08:47.310 --> 00:08:50.520
just because it's so important, look at
your cone beam, see what the anterior

153
00:08:50.530 --> 00:08:51.960
loop for your patient looks like.

154
00:08:52.310 --> 00:08:53.320
An anterior loop might be three

155
00:08:53.330 --> 00:08:55.020
millimeters or it might be one millimeter.

156
00:08:55.510 --> 00:08:57.860
So six millimeters, placing implant,

157
00:08:58.370 --> 00:09:01.380
sorry, pointing the implant six millimeters anterior is a decent rule of

158
00:09:01.390 --> 00:09:02.660
thumb, but it doesn't work all the time.

159
00:09:03.970 --> 00:09:05.540
All right, so let's go ahead and mark

160
00:09:05.550 --> 00:09:07.240
that six millimeter point.

161
00:09:08.350 --> 00:09:10.740
Remember, you should use like a pencil or

162
00:09:10.750 --> 00:09:12.280
a surgical marker.

163
00:09:13.170 --> 00:09:15.500
I'm just going to show you by marking on

164
00:09:15.510 --> 00:09:15.980
the mandible.

165
00:09:17.310 --> 00:09:20.460
All right, so let's do six millimeters anterior.

166
00:09:23.090 --> 00:09:24.880
All right, so that's six millimeters anterior.

167
00:09:25.890 --> 00:09:28.880
And so now I'm going to aim my implant at

168
00:09:28.890 --> 00:09:29.460
that site.

169
00:09:31.230 --> 00:09:32.460

So in real life, you're using a

170
00:09:32.470 --> 00:09:33.200
Minnesota, right?

171
00:09:33.330 --> 00:09:34.240
A Minnesota right here.

172
00:09:34.630 --> 00:09:38.880
And your assistant can use a periosteal elevator and just kind of retract the

173
00:09:38.890 --> 00:09:41.100
lingual tissue just so you can have a better view.

174
00:09:44.190 --> 00:09:46.540
But yeah, so I'm using my fingers right now.

175
00:09:47.190 --> 00:09:49.660
All right, so remember, if we place it

176
00:09:49.670 --> 00:09:55.180
straight up and down, I can aim it here, but we're not going to get any good AP spread.

177
00:09:55.190 --> 00:10:00.900
So we're placing it back here and aiming it at 30 degrees towards that little

178
00:10:00.910 --> 00:10:03.160
bullseye that we made.

179
00:10:04.510 --> 00:10:06.520
All right, so let's go for it.

180
00:10:19.080 --> 00:10:24.130
All right, so now I'm going to take my Lance pilot drill out of the drill, out

181
00:10:24.140 --> 00:10:24.750
of the contra angle.

182
00:10:25.400 --> 00:10:28.170
I'm going to put it right here so we can

183
00:10:28.180 --> 00:10:29.310
evaluate our angle.

184
00:10:39.230 --> 00:10:40.300
So we should look at it like that.

185
00:10:40.350 --> 00:10:40.960
How does that look to you?

186
00:10:41.030 --> 00:10:41.920
Does it look like 30 degrees?

187
00:10:43.170 --> 00:10:44.360
Looks pretty close to me.

188
00:10:46.550 --> 00:10:48.600
And does it look like we're aimed at that sight?

189
00:10:48.790 --> 00:10:48.900
Yep.

190
00:10:49.750 --> 00:10:51.080
Staying away from the mental foramen?

191
00:10:51.310 --> 00:10:51.520
Yep.

192
00:10:52.490 --> 00:10:53.540
All right, so let's keep going.

193
00:10:54.290 --> 00:10:58.560
We're going to take our 2mm and we're going to take that one to depth.

194
00:10:59.510 --> 00:11:02.620
So our 2mm long is over here.

195
00:11:02.650 --> 00:11:04.500

And this one, I'm going to take a 2mm

196
00:11:04.510 --> 00:11:07.320
short and put it in here.

197
00:11:09.810 --> 00:11:11.500
You might not have a long and a short in

198
00:11:11.510 --> 00:11:13.460
your kit, but it's fine.

199
00:11:13.530 --> 00:11:14.640
This one, this one actually doesn't need

200
00:11:14.650 --> 00:11:15.320
to be in here right now.

201
00:11:15.370 --> 00:11:16.380
You can just, you know what?

202
00:11:16.390 --> 00:11:18.320
Why don't we just work with one drill?

203
00:11:18.890 --> 00:11:20.120
This one doesn't need to be in here

204
00:11:20.130 --> 00:11:26.780
because the angle that I care about is comparing this distal implant angle to

205
00:11:26.790 --> 00:11:30.440
this anterior implant angle because we know these two are parallel already, right?

206
00:11:36.600 --> 00:11:44.160
So I'm going to put it back into the preparation and I'm looking again from

207
00:11:44.170 --> 00:11:45.940
the side, approximating 30 degrees.

208
00:11:46.350 --> 00:11:47.780

And let's go ahead and take it to the

209
00:11:47.790 --> 00:11:51.060
depth for an 11 .5mm implant.

210
00:12:04.810 --> 00:12:08.660
All right, so now I have the two distal

211
00:12:08.670 --> 00:12:09.280
sites prepared.

212
00:12:10.230 --> 00:12:11.420
I'm going to put that in there.

213
00:12:16.840 --> 00:12:22.210
The two anterior sites prepared, the two
distal sites prepared, and I'm pretty

214
00:12:22.220 --> 00:12:22.990
happy with how it looks.

215
00:12:23.200 --> 00:12:23.770
What do you think?

216
00:12:25.000 --> 00:12:25.390
Yeah?

217
00:12:27.850 --> 00:12:30.960
All right, so now what you can do at this

218
00:12:30.970 --> 00:12:35.780
step is if you have a cone beam, you can
take an intraoperative cone beam.

219
00:12:36.510 --> 00:12:40.240
I think that's a good idea, especially if
you're just starting to get comfortable

220
00:12:40.250 --> 00:12:40.840
with this procedure.

221
00:12:41.130 --> 00:12:43.800

Take an intraoperative cone beam just to

222
00:12:43.810 --> 00:12:48.480
triple check where you're at and you can
triple check how close to the nerve you

223
00:12:48.490 --> 00:12:49.580
are in that cone beam.

224
00:12:49.710 --> 00:12:50.660
That would be really helpful.

225
00:12:53.010 --> 00:12:56.480
You can also take a pano right now.

226
00:12:57.010 --> 00:12:59.280
Just have the patient recover a little

227
00:12:59.290 --> 00:13:00.500
bit and walk on over to the pano.

228
00:13:01.610 --> 00:13:03.240
That's a way to just feel really good

229
00:13:03.250 --> 00:13:06.680
about the sites before you move forward.

230
00:13:06.690 --> 00:13:08.840
Right now, things are still changeable,

231
00:13:09.090 --> 00:13:13.560
but once you go ahead and place the
implants, it's a lot harder to change.

232
00:13:14.150 --> 00:13:15.520
Make sure you're happy right now.

233
00:13:16.790 --> 00:13:19.720
Switch sides at this point to this side.

234
00:13:20.150 --> 00:13:24.940
If you're working on the patient's left,

switch over to the patient's right and

235

00:13:24.950 --> 00:13:26.380

check the implant angulations.

236

00:13:27.090 --> 00:13:30.620

Ask your assistants, ask your friends, so

237

00:13:30.630 --> 00:13:32.220

you can see that my angles line up pretty good.

238

00:13:33.070 --> 00:13:33.800

That's pretty great.

239

00:13:33.870 --> 00:13:34.480

I'm happy with it.

240

00:13:35.090 --> 00:13:37.820

Anyway, after some imaging, if you have

241

00:13:37.830 --> 00:13:40.780

it, then let's go on to the next step.