

1
00:00:00,000 --> 00:00:07,260
[Music]
This is Mayo Clinic Talks,
2
00:00:07,260 --> 00:00:09,060
a curated weekly
podcast for
3
00:00:09,060 --> 00:00:11,369
physicians and
healthcare providers.
4
00:00:11,369 --> 00:00:13,215
I'm your host,
Daryll Chutka,
5
00:00:13,215 --> 00:00:14,280
a general internist at
6
00:00:14,280 --> 00:00:16,635
Mayo Clinic in
Rochester, Minnesota.
7
00:00:16,635 --> 00:00:18,690
Knee pain is extremely
8
00:00:18,690 --> 00:00:20,805
common affecting
millions of people.
9
00:00:20,805 --> 00:00:22,950
It's estimated that
knee pain accounts for
10
00:00:22,950 --> 00:00:25,440
over 12 million
outpatient visits
11
00:00:25,440 --> 00:00:27,585
to health care
providers per year.
12

00:00:27,585 --> 00:00:29,100
Whether patients have
13
00:00:29,100 --> 00:00:30,690
acute knee pain
as a result of
14
00:00:30,690 --> 00:00:31,940
an injury or
15
00:00:31,940 --> 00:00:34,430
chronic knee pain
from osteoarthritis,
16
00:00:34,430 --> 00:00:35,630
it can result in
17
00:00:35,630 --> 00:00:37,745
major changes in
one's lifestyle,
18
00:00:37,745 --> 00:00:39,740
often reducing our
ability to remain
19
00:00:39,740 --> 00:00:41,690
active. To help us
20
00:00:41,690 --> 00:00:44,180
sort out knee pain we
have with us today,
21
00:00:44,180 --> 00:00:46,670
Dr. Daniel Saris,
an orthopedic
22
00:00:46,670 --> 00:00:47,870
surgeon and sports medicine
23
00:00:47,870 --> 00:00:49,310
physician with a specialty,
24

00:00:49,310 --> 00:00:51,935
in knee surgery and
regenerative medicine.

25
00:00:51,935 --> 00:00:53,930
Daniel, Welcome.
Saris: Thank you very much,

26
00:00:53,930 --> 00:00:56,210
Dr. Chutka, very
nice to be here.

27
00:00:56,210 --> 00:00:58,760
Chutka: Well, knee pain
is very common.

28
00:00:58,760 --> 00:01:00,230
I have an
outpatient practice

29
00:01:00,230 --> 00:01:02,120
and that's probably the

30
00:01:02,120 --> 00:01:05,945
most common joint I see
affected by, by pain.

31
00:01:05,945 --> 00:01:08,570
What questions
should we ask

32
00:01:08,570 --> 00:01:10,070
patients when they have

33
00:01:10,070 --> 00:01:11,705
a complaint of knee pain?

34
00:01:11,705 --> 00:01:14,120
Saris: Yeah, there's not
one golden question

35
00:01:14,120 --> 00:01:16,160
that solves the

whole diagnosis.

36
00:01:16,160 --> 00:01:18,770
But what I think is
most important to spend

37
00:01:18,770 --> 00:01:19,850
about a minute or

38
00:01:19,850 --> 00:01:22,055
two just listening
to their story.

39
00:01:22,055 --> 00:01:24,290
All of their stories
will be individual.

40
00:01:24,290 --> 00:01:25,865
They'll all be a
little bit different,

41
00:01:25,865 --> 00:01:28,355
but the overall story
will be the same.

42
00:01:28,355 --> 00:01:31,505
And the common
denominator is pain.

43
00:01:31,505 --> 00:01:33,410
That limits
their quality of

44
00:01:33,410 --> 00:01:36,185
life and their activities
of daily living.

45
00:01:36,185 --> 00:01:38,630
And after I've listened
to that and you know,

46
00:01:38,630 --> 00:01:40,640
it's probably arthritis or

47
00:01:40,640 --> 00:01:42,605
it's probably
meniscus problem.

48
00:01:42,605 --> 00:01:43,520
You zoom in with

49
00:01:43,520 --> 00:01:45,170
some detailed
questions like,

50
00:01:45,170 --> 00:01:46,490
how often does
it bother you?

51
00:01:46,490 --> 00:01:47,720
How much does it
bother you,

52
00:01:47,720 --> 00:01:49,175
do you use medication?

53
00:01:49,175 --> 00:01:50,450
How far can you walk?

54
00:01:50,450 --> 00:01:51,920
Does it keep you
up at night?

55
00:01:51,920 --> 00:01:53,570
What have you
done about it?

56
00:01:53,570 --> 00:01:55,400
The most important
one I think when

57
00:01:55,400 --> 00:01:57,425
we talk to these people is,

58
00:01:57,425 --> 00:01:59,735

what's your reason
to be here today?

59
00:01:59,735 --> 00:02:01,160
What are you
expecting from us?

60
00:02:01,160 --> 00:02:02,030
How can I help?

61
00:02:02,030 --> 00:02:03,200
What are the things
that they are

62
00:02:03,200 --> 00:02:05,420
uncertain about or they
have questions about?

63
00:02:05,420 --> 00:02:06,380
Those are the questions

64
00:02:06,380 --> 00:02:07,700
that I'm interested in.

65
00:02:07,700 --> 00:02:08,930
Dr. Chutka: And I think as with

66
00:02:08,930 --> 00:02:11,330
most problems in medicine,

67
00:02:11,330 --> 00:02:13,250
the history
usually gives me

68
00:02:13,250 --> 00:02:14,330
the most information in

69
00:02:14,330 --> 00:02:15,470
terms of what's going on,

70
00:02:15,470 --> 00:02:17,015
in terms of the

cause of their pain.

71

00:02:17,015 --> 00:02:18,320

Saris: I fully agree with that.

72

00:02:18,320 --> 00:02:19,280

I fully agree with that.

73

00:02:19,280 --> 00:02:21,950

And that's where
everything comes together.

74

00:02:21,950 --> 00:02:23,750

The patients really
have their own story

75

00:02:23,750 --> 00:02:24,680

and it doesn't
really matter

76

00:02:24,680 --> 00:02:25,610

what their background is,

77

00:02:25,610 --> 00:02:26,690

they will tell
you the story.

78

00:02:26,690 --> 00:02:28,415

We just need to listen
appropriately and

79

00:02:28,415 --> 00:02:30,875

then you zoom in with
a few final questions.

80

00:02:30,875 --> 00:02:32,660

I try never to take
the lead to much,

81

00:02:32,660 --> 00:02:34,040

but let them lead
the discussion

82

00:02:34,040 --> 00:02:35,420

where they want us to help.

83

00:02:35,420 --> 00:02:37,040

Chutka: Okay. Let us talk about

84

00:02:37,040 --> 00:02:38,915

two different groups,
our younger patients

85

00:02:38,915 --> 00:02:40,175

and our older patients.

86

00:02:40,175 --> 00:02:41,840

What are the more
common causes of

87

00:02:41,840 --> 00:02:44,120

knee pain in younger
individuals?

88

00:02:44,120 --> 00:02:45,500

Saris: Yeah. So those are usually

89

00:02:45,500 --> 00:02:47,930

traumatic or
overuse injury.

90

00:02:47,930 --> 00:02:50,885

So that can be either
related to their work,

91

00:02:50,885 --> 00:02:53,555

their activities of
daily living at home,

92

00:02:53,555 --> 00:02:54,920

or more frequently

93

00:02:54,920 --> 00:02:56,765

sports activities,
of course.

94
00:02:56,765 --> 00:02:57,860
One of the ones that

95
00:02:57,860 --> 00:02:58,790
I'm getting more familiar

96
00:02:58,790 --> 00:03:00,980
with here in Minnesota
now is CrossFit.

97
00:03:00,980 --> 00:03:02,630
I'm not sure if you're
familiar with it,

98
00:03:02,630 --> 00:03:03,770
but that's a hobby

99
00:03:03,770 --> 00:03:05,030
that people do
here that really

100
00:03:05,030 --> 00:03:06,080
exerts their body to

101
00:03:06,080 --> 00:03:08,345
the limit and
especially their knees.

102
00:03:08,345 --> 00:03:11,180
So I would say in young
people it's trauma.

103
00:03:11,180 --> 00:03:12,740
And in older people

104
00:03:12,740 --> 00:03:14,420
it's obviously
osteoarthritis.

105
00:03:14,420 --> 00:03:18,440
Chutka: Right. One question that

106
00:03:18,440 --> 00:03:19,580
I've always had is

107
00:03:19,580 --> 00:03:21,710
when is it time
to get an x-ray?

108
00:03:21,710 --> 00:03:24,980
Saris: Yeah. We sometimes
struggle with that

109
00:03:24,980 --> 00:03:26,450
because an x-ray
that's taken to

110
00:03:26,450 --> 00:03:28,370
early doesn't really
serve a purpose.

111
00:03:28,370 --> 00:03:29,720
And an x-ray that shows

112
00:03:29,720 --> 00:03:30,860
the obvious also doesn't.

113
00:03:30,860 --> 00:03:32,870
So I have the same
question as you.

114
00:03:32,870 --> 00:03:35,060
I think it's really
important if it

115
00:03:35,060 --> 00:03:38,600
changes your
treatment algorithm.

116
00:03:38,600 --> 00:03:40,580
If it helps you explain

117
00:03:40,580 --> 00:03:41,840

the disease by showing

118

00:03:41,840 --> 00:03:43,355
the patient the picture.

119

00:03:43,355 --> 00:03:45,560
And that can go in
both directions.

120

00:03:45,560 --> 00:03:46,940
So if you have a
patient that's

121

00:03:46,940 --> 00:03:48,545
really concerned
about their pain

122

00:03:48,545 --> 00:03:50,120
and you don't
necessarily think

123

00:03:50,120 --> 00:03:52,160
it's a severe
case of anything.

124

00:03:52,160 --> 00:03:54,140
A normal looking
x-ray can help you

125

00:03:54,140 --> 00:03:56,510
explain and put
their mind at ease.

126

00:03:56,510 --> 00:03:58,640
The other way around
is the same thing.

127

00:03:58,640 --> 00:04:00,170
So if you know
it's severe osteo

128

00:04:00,170 --> 00:04:02,495
arthritic or

inflammatory disease.

129

00:04:02,495 --> 00:04:04,190
An x-ray can also make

130

00:04:04,190 --> 00:04:05,750
people understand
why they need to

131

00:04:05,750 --> 00:04:07,820
take it more easily
or why they need

132

00:04:07,820 --> 00:04:08,720
to maybe progress to

133

00:04:08,720 --> 00:04:10,340
the next phase
of treatment.

134

00:04:10,340 --> 00:04:13,940
So I think an x-ray is
nowadays quite safe,

135

00:04:13,940 --> 00:04:16,100
quite simple, and makes

136

00:04:16,100 --> 00:04:18,620
sense to do in an earlier
phase of treatment.

137

00:04:18,620 --> 00:04:21,379
Dr. Chutka: I've noticed
that the degree

138

00:04:21,379 --> 00:04:23,090
of osteoarthritic changes on an

139

00:04:23,090 --> 00:04:25,100
x-ray often don't

140

00:04:25,100 --> 00:04:27,140

correlate with the
patient's symptoms?

141
00:04:27,140 --> 00:04:28,190
Saris: No, I agree with you.

142
00:04:28,190 --> 00:04:29,630
I agree with you. So we

143
00:04:29,630 --> 00:04:31,310
do see a lot of
patients who don't

144
00:04:31,310 --> 00:04:33,395
have that much pain

145
00:04:33,395 --> 00:04:35,315
even though the x-ray
looks terrible, right?

146
00:04:35,315 --> 00:04:36,350
And that's why it's very

147
00:04:36,350 --> 00:04:37,370
important for all of us to

148
00:04:37,370 --> 00:04:39,470
keep reminding patients
that we treat them.

149
00:04:39,470 --> 00:04:41,015
We don't treat the imaging.

150
00:04:41,015 --> 00:04:42,740
And sometimes if they read

151
00:04:42,740 --> 00:04:44,480
the imaging reports
through the portal

152
00:04:44,480 --> 00:04:46,340
or through other ways

153
00:04:46,340 --> 00:04:47,780
of getting their
medical information.

154
00:04:47,780 --> 00:04:49,460
People coming quite
scared because

155
00:04:49,460 --> 00:04:51,350
it looks terrible
if you read,

156
00:04:51,350 --> 00:04:53,840
you have end stage
bone on bone disease.

157
00:04:53,840 --> 00:04:55,880
But they still
play 18 holes.

158
00:04:55,880 --> 00:04:56,990
They still work
on the farm.

159
00:04:56,990 --> 00:04:58,700
They still play around
with our grandkids.

160
00:04:58,700 --> 00:05:01,310
And I think that's
on us to explain

161
00:05:01,310 --> 00:05:02,600
that the imaging
and what they

162
00:05:02,600 --> 00:05:04,640
feel aren't
one-on-one related.

163
00:05:04,640 --> 00:05:06,500

Chutka: In the past, patients were

164
00:05:06,500 --> 00:05:09,110
disappointed if we
didn't get a knee X-ray.

165
00:05:09,110 --> 00:05:10,400
Now they're disappointed if

166
00:05:10,400 --> 00:05:11,975
we don't get a knee MRI?

167
00:05:11,975 --> 00:05:14,555
Saris: Yes. Chutka: When is that
imaging study indicated?

168
00:05:14,555 --> 00:05:16,265
Saris: That's a very,

169
00:05:16,265 --> 00:05:18,545
very important one
to manage better.

170
00:05:18,545 --> 00:05:21,140
We still see 70 year olds

171
00:05:21,140 --> 00:05:24,545
or even 83-year-olds
with a knee MRI.

172
00:05:24,545 --> 00:05:25,880
And I think you
have to have

173
00:05:25,880 --> 00:05:28,025
really good indication
to do that.

174
00:05:28,025 --> 00:05:29,960
There are countries
where there are

175
00:05:29,960 --> 00:05:32,270
rules that say if
you're above 45,

176
00:05:32,270 --> 00:05:33,710
you should have a
good explanation

177
00:05:33,710 --> 00:05:34,640
to do a knee MRI,

178
00:05:34,640 --> 00:05:35,840
otherwise, it will show

179
00:05:35,840 --> 00:05:37,295
more than you can treat.

180
00:05:37,295 --> 00:05:39,905
So I think if you have
mechanical symptoms,

181
00:05:39,905 --> 00:05:41,465
if you have an
effusion that

182
00:05:41,465 --> 00:05:43,220
you cannot fully explain.

183
00:05:43,220 --> 00:05:45,170
If you have a sense
of instability

184
00:05:45,170 --> 00:05:47,150
or loose body in the knee,

185
00:05:47,150 --> 00:05:48,860
then it merits an MRI.

186
00:05:48,860 --> 00:05:51,470
If you just want to
evaluate knee pain in

187
00:05:51,470 --> 00:05:52,535
an elderly person and

188
00:05:52,535 --> 00:05:53,390
you can decide where you

189
00:05:53,390 --> 00:05:55,580
put that boundary,

190
00:05:55,580 --> 00:05:56,990
then I think we
should stay away

191
00:05:56,990 --> 00:05:58,340
from MRIs
because they will

192
00:05:58,340 --> 00:06:00,315
show a lot of findings

193
00:06:00,315 --> 00:06:02,015
in the result that
will scare patients.

194
00:06:02,015 --> 00:06:03,500
And I would say if

195
00:06:03,500 --> 00:06:05,555
people have wrinkles
or gray hair,

196
00:06:05,555 --> 00:06:06,680
they will have a tear on

197
00:06:06,680 --> 00:06:08,270
the MRI if there are any, in

198
00:06:08,270 --> 00:06:09,950
the meniscus, and
that's almost

199

00:06:09,950 --> 00:06:12,275
nothing you should
really treat.

200
00:06:12,275 --> 00:06:14,810
So an MRI is more
dangerous to

201
00:06:14,810 --> 00:06:16,460
use because it can

202
00:06:16,460 --> 00:06:17,930
scare patients
into surgery,

203
00:06:17,930 --> 00:06:20,060
which is sometimes
not necessary.

204
00:06:20,060 --> 00:06:23,105
Chutka: I think a comment you
made is most important

205
00:06:23,105 --> 00:06:24,560
that if it's going to

206
00:06:24,560 --> 00:06:26,330
change the direction
of your management,

207
00:06:26,330 --> 00:06:27,440
it's worth
getting some type

208
00:06:27,440 --> 00:06:29,195
of imaging.
Saris: I fully agree.

209
00:06:29,195 --> 00:06:30,830
So, and there I would

210
00:06:30,830 --> 00:06:32,600
say that if you think that

211
00:06:32,600 --> 00:06:34,520
this patient does have
mechanical complaints

212
00:06:34,520 --> 00:06:36,335
from a meniscus
or a loose body.

213
00:06:36,335 --> 00:06:38,225
And you are
thinking towards

214
00:06:38,225 --> 00:06:39,920
a new orthroscopy,
than I

215
00:06:39,920 --> 00:06:41,990
do think it makes
sense to do an MRI.

216
00:06:41,990 --> 00:06:44,045
Not always, but frequently.

217
00:06:44,045 --> 00:06:45,650
If you feel that you

218
00:06:45,650 --> 00:06:47,240
don't fully understand
their complaints,

219
00:06:47,240 --> 00:06:48,860
then I do think
that an MRI makes

220
00:06:48,860 --> 00:06:50,540
sense as long as
you are willing

221
00:06:50,540 --> 00:06:52,670
to explain to them
that even if it

222
00:06:52,670 --> 00:06:54,170
shows a signal change that

223
00:06:54,170 --> 00:06:56,015
may resemble a
meniscus tear,

224
00:06:56,015 --> 00:06:57,200
that doesn't necessarily

225
00:06:57,200 --> 00:06:58,595
mean it needs surgery.

226
00:06:58,595 --> 00:07:01,130
And if you manage those
expectations well,

227
00:07:01,130 --> 00:07:02,795
it can be a useful adjunct.

228
00:07:02,795 --> 00:07:04,850
We don't want to waste

229
00:07:04,850 --> 00:07:07,010
money and time
and facilities

230
00:07:07,010 --> 00:07:08,090
if it doesn't change

231
00:07:08,090 --> 00:07:09,425
the way we treat patients.

232
00:07:09,425 --> 00:07:11,420
Chutka: You've mentioned
meniscal tears.

233
00:07:11,420 --> 00:07:13,760
What actually causes
meniscal tears?

234

00:07:13,760 --> 00:07:15,860
What type of activity
is most commonly

235
00:07:15,860 --> 00:07:18,530
going to result in a
tear of the meniscus?

236
00:07:18,530 --> 00:07:20,570
Saris: There again, you
can see two waves.

237
00:07:20,570 --> 00:07:22,430
So you will see the
younger patients

238
00:07:22,430 --> 00:07:24,215
with traumatic
meniscus tear,

239
00:07:24,215 --> 00:07:26,930
usually related to
an unstable knee or

240
00:07:26,930 --> 00:07:28,640
pivoting sports
where they tear

241
00:07:28,640 --> 00:07:29,750
their meniscus and their

242
00:07:29,750 --> 00:07:31,040
ACL at the same time.

243
00:07:31,040 --> 00:07:32,090
And we'll probably
talk about

244
00:07:32,090 --> 00:07:33,425
that a little bit later.

245
00:07:33,425 --> 00:07:35,600
And those are

healthy tissues with

246
00:07:35,600 --> 00:07:37,865
an impact that's higher
than they can resist.

247
00:07:37,865 --> 00:07:41,510
And it's usually a
squishing turning motion

248
00:07:41,510 --> 00:07:43,865
that hyper flexes
and turns the knee.

249
00:07:43,865 --> 00:07:45,890
And the other group
is where the tissues

250
00:07:45,890 --> 00:07:46,940
degenerate and then it's

251
00:07:46,940 --> 00:07:48,800
just a progressive pain

252
00:07:48,800 --> 00:07:50,390
in the knee that
at sometimes

253
00:07:50,390 --> 00:07:52,250
when they got up
out of the sofa or

254
00:07:52,250 --> 00:07:53,870
when they're
kneeling down in

255
00:07:53,870 --> 00:07:55,850
church or in the garden
and they get up,

256
00:07:55,850 --> 00:07:58,070
they feel a tearing,
popping sensation in

257
00:07:58,070 --> 00:07:58,700
their knee and that's

258
00:07:58,700 --> 00:08:00,935
this tissue giving
out on them.

259
00:08:00,935 --> 00:08:02,600
Both are very different in

260
00:08:02,600 --> 00:08:03,800
their origin and both

261
00:08:03,800 --> 00:08:05,120
are also treated
differently.

262
00:08:05,120 --> 00:08:08,090
Chutka: Okay. Can meniscal tears
heal on their own?

263
00:08:08,090 --> 00:08:09,380
Saris: In younger patients with

264
00:08:09,380 --> 00:08:11,390
healthy tissues and
good vascularization?

265
00:08:11,390 --> 00:08:13,490
Yes. They can
heal even up to

266
00:08:13,490 --> 00:08:16,040
60%. In older tissues?

267
00:08:16,040 --> 00:08:18,020
No. Because it's
like asking cooked

268
00:08:18,020 --> 00:08:20,465
spaghetti to heal,

that will not work.

269
00:08:20,465 --> 00:08:21,800
And the same for surgery.

270
00:08:21,800 --> 00:08:23,930
So degenerative
meniscus tears

271
00:08:23,930 --> 00:08:25,670
will not do well
with surgery.

272
00:08:25,670 --> 00:08:27,470
Younger, healthy
tissue with

273
00:08:27,470 --> 00:08:28,520
meniscus repair

274
00:08:28,520 --> 00:08:30,095
procedures will
do quite well,

275
00:08:30,095 --> 00:08:31,160
especially if the knee is

276
00:08:31,160 --> 00:08:33,365
stable and the patient
is otherwise healthy.

277
00:08:33,365 --> 00:08:35,810
Chutka: So how do we manage
meniscal tears?

278
00:08:35,810 --> 00:08:37,280
Let's say we suspect one, we

279
00:08:37,280 --> 00:08:39,275
get an MRI, it confirms it.

280
00:08:39,275 --> 00:08:41,450

When do we get aggressive and

281
00:08:41,450 --> 00:08:44,419
recommend arthroscopy
versus observation?

282
00:08:44,419 --> 00:08:46,520
Saris: Yeah, that's really
important and I

283
00:08:46,520 --> 00:08:48,545
don't think there's
one correct answer.

284
00:08:48,545 --> 00:08:50,150
What is really
important again is to

285
00:08:50,150 --> 00:08:52,700
differentiate if it
is a younger patient

286
00:08:52,700 --> 00:08:54,020
with healthy tissue in

287
00:08:54,020 --> 00:08:56,090
a traumatic situation that

288
00:08:56,090 --> 00:08:58,445
has a normal meniscus
that is now torn.

289
00:08:58,445 --> 00:09:00,380
Those patients
should be referred

290
00:09:00,380 --> 00:09:01,670
early and we should

291
00:09:01,670 --> 00:09:03,500
aggressively follow
them and treat them.

292
00:09:03,500 --> 00:09:05,690
Because if they lose
the meniscus tissue,

293
00:09:05,690 --> 00:09:07,399
there is a linear
correlation

294
00:09:07,399 --> 00:09:08,180
between the amount of

295
00:09:08,180 --> 00:09:09,950
tissue lost and
the amount of

296
00:09:09,950 --> 00:09:12,485
osteoarthritis at five
or ten years even.

297
00:09:12,485 --> 00:09:14,300
And there I would err on

298
00:09:14,300 --> 00:09:16,160
the side of being
overly cautious.

299
00:09:16,160 --> 00:09:17,360
So send them to us and we

300
00:09:17,360 --> 00:09:19,040
will help them
make the decision.

301
00:09:19,040 --> 00:09:21,290
On the other side, we
need to be very careful

302
00:09:21,290 --> 00:09:23,840
because we know that 30% of

303
00:09:23,840 --> 00:09:24,860
the patients

who have a knee

304
00:09:24,860 --> 00:09:27,080
arthroscopy with pain as

305
00:09:27,080 --> 00:09:28,190
the main reason in

306
00:09:28,190 --> 00:09:29,870
degenerative
meniscus tears do

307
00:09:29,870 --> 00:09:31,745
worse, than without surgery.

308
00:09:31,745 --> 00:09:34,280
We know that they have
12% more complications

309
00:09:34,280 --> 00:09:36,065
than the people who
never had surgery.

310
00:09:36,065 --> 00:09:37,670
So the degenerative

311
00:09:37,670 --> 00:09:39,080
meniscus tear
should be managed

312
00:09:39,080 --> 00:09:41,360
conservatively with
physical therapy,

313
00:09:41,360 --> 00:09:42,920
non-steroidals,

314
00:09:42,920 --> 00:09:44,510
guided activity,

315
00:09:44,510 --> 00:09:46,400
and the grinding motion of

316
00:09:46,400 --> 00:09:48,635
moving your knee will
grind down the tissue,

317
00:09:48,635 --> 00:09:50,030
the body will reabsorb it.

318
00:09:50,030 --> 00:09:51,395
And that's the
way to manage

319
00:09:51,395 --> 00:09:53,300
a degenerative
meniscus tear

320
00:09:53,300 --> 00:09:55,820
unless it mechanically
locks the knee.

321
00:09:55,820 --> 00:09:57,800
If the knees mechanically
locked and you

322
00:09:57,800 --> 00:10:00,035
can't do your normal
activities, then,

323
00:10:00,035 --> 00:10:02,255
it could be considered to
do an arthroscopy.

324
00:10:02,255 --> 00:10:04,070
Chutka: Okay. I see

325
00:10:04,070 --> 00:10:07,070
these young athletes
in their twenties,

326
00:10:07,070 --> 00:10:09,290
maybe thirties,
get meniscal tears

327
00:10:09,290 --> 00:10:11,000
as a result of their sport.

328
00:10:11,000 --> 00:10:12,785
Are they at risk for

329
00:10:12,785 --> 00:10:14,450
degenerative
arthritis as a result

330
00:10:14,450 --> 00:10:16,175
of recurrent
meniscal tears?

331
00:10:16,175 --> 00:10:18,530
Saris: Yes. That's a
very simple one.

332
00:10:18,530 --> 00:10:20,870
So if you miss half
of your meniscus,

333
00:10:20,870 --> 00:10:23,405
there's 50% chance
of osteoarthritis at

334
00:10:23,405 --> 00:10:25,340
ten years. If your
whole meniscus

335
00:10:25,340 --> 00:10:26,839
out, it's a 100%.

336
00:10:26,839 --> 00:10:28,460
So those are very important

337
00:10:28,460 --> 00:10:29,690
patients to pick up on.

338
00:10:29,690 --> 00:10:31,400
And we have techniques
now that are

339
00:10:31,400 --> 00:10:33,785
reliable in restoring
meniscus volume,

340
00:10:33,785 --> 00:10:36,050
in retaining the
patient's own meniscus or

341
00:10:36,050 --> 00:10:37,610
even replacing
their meniscus

342
00:10:37,610 --> 00:10:39,260
by a meniscus transplant.

343
00:10:39,260 --> 00:10:42,020
And these procedures
alter the numbers into

344
00:10:42,020 --> 00:10:44,840
short-term and probably
in the long-term,

345
00:10:44,840 --> 00:10:45,890
but we're still
waiting for the

346
00:10:45,890 --> 00:10:47,150
20-year data on that.

347
00:10:47,150 --> 00:10:48,560
Chutka: Ok. Let's talk about

348
00:10:48,560 --> 00:10:50,285
another cause of knee pain.

349
00:10:50,285 --> 00:10:53,090
How about patellofemoral
pain syndrome?

350
00:10:53,090 --> 00:10:54,680

And what
actually is that?

351
00:10:54,680 --> 00:10:58,610
Saris: Yeah, that's a bag of
interesting challenges,

352
00:10:58,610 --> 00:10:59,990
I would say. So,

353
00:10:59,990 --> 00:11:01,430
patellofemoral pain syndrome

354
00:11:01,430 --> 00:11:03,050
can be many things.

355
00:11:03,050 --> 00:11:04,190
The ones that
I think we can

356
00:11:04,190 --> 00:11:05,630
treat well as surgeons

357
00:11:05,630 --> 00:11:06,665
are the ones where

358
00:11:06,665 --> 00:11:08,450
mechanical
alignment is off,

359
00:11:08,450 --> 00:11:09,680
where stability is off,

360
00:11:09,680 --> 00:11:11,765
where there is an anatomical

361
00:11:11,765 --> 00:11:13,310
or functional reason

362
00:11:13,310 --> 00:11:14,630
that we can address

363
00:11:14,630 --> 00:11:16,070
after you've tried proper

364
00:11:16,070 --> 00:11:18,050
Rehabilitation,
preventive measures,

365
00:11:18,050 --> 00:11:19,475
and realignment

366
00:11:19,475 --> 00:11:21,530
through non-surgical
measures.

367
00:11:21,530 --> 00:11:23,930
There's just as
in low back pain,

368
00:11:23,930 --> 00:11:27,890
also, a contingency of
patients that project

369
00:11:27,890 --> 00:11:29,870
the challenges of life on

370
00:11:29,870 --> 00:11:32,120
their knee and therefore
experience pain.

371
00:11:32,120 --> 00:11:34,010
And they clearly
have a challenge

372
00:11:34,010 --> 00:11:35,060
that we can help them with,

373
00:11:35,060 --> 00:11:37,055
but the solution
isn't surgical.

374
00:11:37,055 --> 00:11:38,630
And I think we need to make

375
00:11:38,630 --> 00:11:39,860
sure that we don't
put patients

376
00:11:39,860 --> 00:11:40,970
in that category where

377
00:11:40,970 --> 00:11:42,530
if they're not
supposed to be there,

378
00:11:42,530 --> 00:11:43,940
but we should
definitely not start

379
00:11:43,940 --> 00:11:45,785
surgery on them too early.

380
00:11:45,785 --> 00:11:49,010
What I also see
nowadays more and

381
00:11:49,010 --> 00:11:50,390
a little bit more
here than in

382
00:11:50,390 --> 00:11:51,980
my previous
practice in Europe

383
00:11:51,980 --> 00:11:53,840
I think Darryl, is

384
00:11:53,840 --> 00:11:56,450
people who carry around
too much weight.

385
00:11:56,450 --> 00:11:58,295
And if you carry around
too much weight,

386

00:11:58,295 --> 00:12:00,515
especially on
your knees where

387
00:12:00,515 --> 00:12:03,860
body weight is five to
seven times higher

388
00:12:03,860 --> 00:12:05,450
load on your knee
when you walk up

389
00:12:05,450 --> 00:12:07,220
stairs or get up
out of a chair

390
00:12:07,220 --> 00:12:09,110
every ten or 15
pounds that are

391
00:12:09,110 --> 00:12:10,250
too much, project on

392
00:12:10,250 --> 00:12:11,555
the patella femoral joint.

393
00:12:11,555 --> 00:12:13,640
And those patients
we see a lot of here

394
00:12:13,640 --> 00:12:15,560
and clearly that treatment
is not surgical,

395
00:12:15,560 --> 00:12:17,869
it's dietary, its
lifestyle changes.

396
00:12:17,869 --> 00:12:19,970
It's giving them the
information they

397
00:12:19,970 --> 00:12:21,080

need to heal themselves

398

00:12:21,080 --> 00:12:22,280

and to treat
themselves better.

399

00:12:22,280 --> 00:12:25,880

Chutka: Okay. Bursitis of the
knee, not very common,

400

00:12:25,880 --> 00:12:27,290

but I've seen
a few patients

401

00:12:27,290 --> 00:12:29,015

with anserine bursitis

402

00:12:29,015 --> 00:12:31,610

and the patient
actually thought it was

403

00:12:31,610 --> 00:12:33,020

knee pain so it

404

00:12:33,020 --> 00:12:34,700

can present similar
to knee pain.

405

00:12:34,700 --> 00:12:36,575

What actually
is going on there?

406

00:12:36,575 --> 00:12:38,120

Saris: Yeah, I agree with
you that that can

407

00:12:38,120 --> 00:12:39,500

be a tricky diagnosis,

408

00:12:39,500 --> 00:12:40,550

especially because it's on

409

00:12:40,550 --> 00:12:41,915

the medial side
of your knee.

410

00:12:41,915 --> 00:12:43,130

Some of these patients have

411

00:12:43,130 --> 00:12:44,720

varicella osteoarthritis
as well.

412

00:12:44,720 --> 00:12:46,040

But if you just

413

00:12:46,040 --> 00:12:47,420

see the x-ray,
you see the OA,

414

00:12:47,420 --> 00:12:48,350

but you don't examine

415

00:12:48,350 --> 00:12:49,250

them and you feel that it's

416

00:12:49,250 --> 00:12:50,210

actually the tendon,

417

00:12:50,210 --> 00:12:51,290

then you could miss that.

418

00:12:51,290 --> 00:12:53,930

So a repetitive
strain injury

419

00:12:53,930 --> 00:12:55,310

of the tendon attachment,

420

00:12:55,310 --> 00:12:57,485

just like you could
have in a tennis elbow

421

00:12:57,485 --> 00:13:00,140

or in a rotator cuff
injury can also per,

422
00:13:00,140 --> 00:13:02,090
project on the patella
femoral joint or

423
00:13:02,090 --> 00:13:04,265
on the hamstring
attachment to the tibia.

424
00:13:04,265 --> 00:13:05,690
And that's where
the pes anserine

425
00:13:05,690 --> 00:13:07,250
bursitis comes in.

426
00:13:07,250 --> 00:13:09,410
So you can use
diclofenac gel

427
00:13:09,410 --> 00:13:10,640
or a similar NSAID,

428
00:13:10,640 --> 00:13:12,845
you can use
corticosteroid injections,

429
00:13:12,845 --> 00:13:14,630
other ultrasound guidance.

430
00:13:14,630 --> 00:13:15,830
And you can use

431
00:13:15,830 --> 00:13:17,345
isokinetic training

432
00:13:17,345 --> 00:13:19,880
and isometric exercises to

433
00:13:19,880 --> 00:13:20,750

treat those patients

434
00:13:20,750 --> 00:13:22,400
conservatively, that hardly

435
00:13:22,400 --> 00:13:25,385
ever, or I would say never, need
surgical intervention.

436
00:13:25,385 --> 00:13:28,400
Chutka: Okay. And how about
an ACL injury?

437
00:13:28,400 --> 00:13:30,740
What causes that?
Saris: Sports season.

438
00:13:30,740 --> 00:13:32,015
We're almost ready.

439
00:13:32,015 --> 00:13:33,799
Although now with the
current situation,

440
00:13:33,799 --> 00:13:35,060
the situation is different.

441
00:13:35,060 --> 00:13:36,860
But when basketball
season starts,

442
00:13:36,860 --> 00:13:38,585
when football
season starts,

443
00:13:38,585 --> 00:13:40,385
ACL season starts.

444
00:13:40,385 --> 00:13:43,385
So those are usually
a pivotal motion.

445

00:13:43,385 --> 00:13:45,530
Valgus motion on the knee or

446
00:13:45,530 --> 00:13:47,765
really deep flexion
in skiing kids,

447
00:13:47,765 --> 00:13:48,980
where the ACL is

448
00:13:48,980 --> 00:13:50,540
torn because of
the forces on

449
00:13:50,540 --> 00:13:52,070
the ligament being
higher than what

450
00:13:52,070 --> 00:13:54,035
Mother Nature built
us to resist.

451
00:13:54,035 --> 00:13:56,870
And that's an important
injury to pick up on.

452
00:13:56,870 --> 00:13:58,250
They usually feel a pop or

453
00:13:58,250 --> 00:14:00,050
the people around
them even here a pop

454
00:14:00,050 --> 00:14:03,635
like a whip going off
and then the ACL is torn.

455
00:14:03,635 --> 00:14:05,855
Chutka: Okay. So let's get

456
00:14:05,855 --> 00:14:08,900
into the management
of osteoarthritis.

457
00:14:08,900 --> 00:14:11,900
And where do we start?

458
00:14:11,900 --> 00:14:13,580
Patient comes in with

459
00:14:13,580 --> 00:14:15,740
knee pain, history is
pretty classic.

460
00:14:15,740 --> 00:14:16,550
It's been going on

461
00:14:16,550 --> 00:14:18,875
gradually, worse for years.

462
00:14:18,875 --> 00:14:21,125
Where do we start
with those patients?

463
00:14:21,125 --> 00:14:22,460
Saris: Well, that depends on who

464
00:14:22,460 --> 00:14:23,735
we are at that point.

465
00:14:23,735 --> 00:14:26,120
If we're in the primary
care situation,

466
00:14:26,120 --> 00:14:27,080
that's clearly
different than

467
00:14:27,080 --> 00:14:27,920
when they end up

468
00:14:27,920 --> 00:14:30,035
in my office or yours
for that matter.

469
00:14:30,035 --> 00:14:31,610
So I think it's
really important

470
00:14:31,610 --> 00:14:32,870
to figure out where

471
00:14:32,870 --> 00:14:34,310
the patient is in

472
00:14:34,310 --> 00:14:36,695
the step-by-step
approach of treatment.

473
00:14:36,695 --> 00:14:38,660
And then, and if they have

474
00:14:38,660 --> 00:14:39,800
had a couple of the steps

475
00:14:39,800 --> 00:14:40,820
in treatment that we have,

476
00:14:40,820 --> 00:14:42,065
such as pain management,

477
00:14:42,065 --> 00:14:45,470
lifestyle changes,
physical intervention,

478
00:14:45,470 --> 00:14:47,030
we need to check if all of

479
00:14:47,030 --> 00:14:49,310
those phases that they
were in, were done

480
00:14:49,310 --> 00:14:50,780
in the way that
you and I are

481

00:14:50,780 --> 00:14:52,460
used to them
being done here

482
00:14:52,460 --> 00:14:54,080
at Mayo Clinic or elsewhere

483
00:14:54,080 --> 00:14:56,090
with a high level
of expertise.

484
00:14:56,090 --> 00:14:57,800
Because sometimes
physical therapy

485
00:14:57,800 --> 00:14:59,420
isn't physical therapy and

486
00:14:59,420 --> 00:15:00,800
sometimes the medication

487
00:15:00,800 --> 00:15:01,820
that they've been using is

488
00:15:01,820 --> 00:15:03,260
different than the
medication

489
00:15:03,260 --> 00:15:04,670
that we think is ideal.

490
00:15:04,670 --> 00:15:06,695
So the fact that
they've mentioned,

491
00:15:06,695 --> 00:15:07,790
that they've
had those steps

492
00:15:07,790 --> 00:15:08,900
doesn't mean you can't

493

00:15:08,900 --> 00:15:09,950
revisit them with proper

494

00:15:09,950 --> 00:15:12,319
explanation and execution.

495

00:15:12,319 --> 00:15:15,140
I don't think you
should ever proceed to

496

00:15:15,140 --> 00:15:17,060
surgery or bracing if you

497

00:15:17,060 --> 00:15:18,470
haven't done the
steps before

498

00:15:18,470 --> 00:15:19,610
that because
they're there for

499

00:15:19,610 --> 00:15:21,440
a purpose and
they always serve

500

00:15:21,440 --> 00:15:23,990
a purpose to some extent
in every patient.

501

00:15:23,990 --> 00:15:26,240
Chutka: I am always in a dilemma

502

00:15:26,240 --> 00:15:27,770
when a patient
comes in with

503

00:15:27,770 --> 00:15:29,810
obvious osteoarthritis
of the knee

504

00:15:29,810 --> 00:15:31,925
and they're a runner,
a long distance runner.

505

00:15:31,925 --> 00:15:33,260
Saris: Yes.
Chutka: Do we tell them to

506

00:15:33,260 --> 00:15:35,150
not run? To do that
because you're

507

00:15:35,150 --> 00:15:37,220
going to decrease their
activity?

508

00:15:37,220 --> 00:15:38,270
Saris: You know this as well,

509

00:15:38,270 --> 00:15:39,620
Darryl, runners are addicts,
right?

510

00:15:39,620 --> 00:15:41,270
Chutka: Yeah. Saris: So they're
endorphin addicts.

511

00:15:41,270 --> 00:15:42,290
It's very difficult for

512

00:15:42,290 --> 00:15:44,060
the patient-doctor
relationship to tell them

513

00:15:44,060 --> 00:15:45,350
you shouldn't run
because they'll go

514

00:15:45,350 --> 00:15:47,465
somewhere else and
listen to that doctor.

515

00:15:47,465 --> 00:15:49,460
But obviously,

516

00:15:49,460 --> 00:15:51,710
if people start
running at a later age

517
00:15:51,710 --> 00:15:53,390
or when they haven't
been physically

518
00:15:53,390 --> 00:15:55,745
active and then they
develop knee pain,

519
00:15:55,745 --> 00:15:57,290
then we need to
tell them that this

520
00:15:57,290 --> 00:15:59,030
is not where your
body is used to.

521
00:15:59,030 --> 00:16:01,190
We need to help them find

522
00:16:01,190 --> 00:16:02,345
a proper way to do

523
00:16:02,345 --> 00:16:04,625
those activities
if they want to.

524
00:16:04,625 --> 00:16:06,050
Or sometimes you
need to have

525
00:16:06,050 --> 00:16:07,625
the difficult
discussion with them.

526
00:16:07,625 --> 00:16:09,440
If they've been running
their whole life

527
00:16:09,440 --> 00:16:10,505

or a large part of it.

528
00:16:10,505 --> 00:16:12,770
And now they develop
complaints while running.

529
00:16:12,770 --> 00:16:14,090
They usually know very

530
00:16:14,090 --> 00:16:15,470
well that this is
something they need

531
00:16:15,470 --> 00:16:17,960
to face and then you
need to help them change

532
00:16:17,960 --> 00:16:20,689
from a runner to a
swimmer or a cyclist,

533
00:16:20,689 --> 00:16:22,070
or you need to limit

534
00:16:22,070 --> 00:16:23,495
the mileage that they do.

535
00:16:23,495 --> 00:16:24,740
Sometimes people say, Oh,

536
00:16:24,740 --> 00:16:25,880
I've already cut down and

537
00:16:25,880 --> 00:16:27,245
then if you really
drilled down,

538
00:16:27,245 --> 00:16:29,450
they went down from
80 to 50 miles a

539
00:16:29,450 --> 00:16:31,640

week and that can
still be too much.

540
00:16:31,640 --> 00:16:33,260
Chutka: Convince them
maybe a non weight

541
00:16:33,260 --> 00:16:34,925
bearing type of
aerobic activity?

542
00:16:34,925 --> 00:16:36,590
Saris: Absolutely. Or you can
even

543
00:16:36,590 --> 00:16:38,480
give the knees a
break, so to speak,

544
00:16:38,480 --> 00:16:41,000
by doing a little
bit of biking,

545
00:16:41,000 --> 00:16:41,840
a little bit of light

546
00:16:41,840 --> 00:16:42,980
running because
you need to get

547
00:16:42,980 --> 00:16:44,540
the endorphins
and then get them

548
00:16:44,540 --> 00:16:46,610
into hydrotherapy or
running in the pool.

549
00:16:46,610 --> 00:16:48,230
You do not have the
same mechanical

550
00:16:48,230 --> 00:16:49,475

load on the knee joints.

551
00:16:49,475 --> 00:16:51,170
The resistance for running

552
00:16:51,170 --> 00:16:52,700
in water is multiple times

553
00:16:52,700 --> 00:16:54,290
higher than
resistance running

554
00:16:54,290 --> 00:16:56,390
an air so they can
spend more energy.

555
00:16:56,390 --> 00:16:58,040
And that's a good way

556
00:16:58,040 --> 00:16:59,840
to have them do what
they're familiar with,

557
00:16:59,840 --> 00:17:01,760
but still have it
happened to your knees in

558
00:17:01,760 --> 00:17:04,730
a different way.
Chutka: How about steroid
injections?

559
00:17:04,730 --> 00:17:06,950
Saris: Yeah, those can be
very useful adjuncts,

560
00:17:06,950 --> 00:17:10,565
but they only work in
30 to 40% of patients.

561
00:17:10,565 --> 00:17:13,835
And that doesn't mean
they work 0% or a 100%.

562
00:17:13,835 --> 00:17:15,710
They sometimes work
well in a patient

563
00:17:15,710 --> 00:17:18,305
that has a
responder profile,

564
00:17:18,305 --> 00:17:20,435
and sometimes they
don't work as well.

565
00:17:20,435 --> 00:17:22,130
There's no test
that you can do up

566
00:17:22,130 --> 00:17:24,050
front to see if they
will or will not work.

567
00:17:24,050 --> 00:17:25,610
So I think it's
worthwhile if

568
00:17:25,610 --> 00:17:27,380
a patient has an
acute flare up,

569
00:17:27,380 --> 00:17:28,880
if they have an effusion,

570
00:17:28,880 --> 00:17:30,785
and if pain is their main

571
00:17:30,785 --> 00:17:33,020
important driver for
coming to see you.

572
00:17:33,020 --> 00:17:35,060
An intra-articular
injection can be really

573
00:17:35,060 --> 00:17:37,550
beneficial and done
in expert hands with

574
00:17:37,550 --> 00:17:39,230
good standard
technique that has

575
00:17:39,230 --> 00:17:42,185
a reliable prediction of

576
00:17:42,185 --> 00:17:43,880
30 to 40% results which

577
00:17:43,880 --> 00:17:45,905
can last for weeks,
sometimes months.

578
00:17:45,905 --> 00:17:46,700
Chutka: How about

579
00:17:46,700 --> 00:17:48,815
the artificial synovial
joint injection?

580
00:17:48,815 --> 00:17:50,435
I know when that
first came out,

581
00:17:50,435 --> 00:17:52,640
everybody was excited
about it and I think

582
00:17:52,640 --> 00:17:55,550
the enthusiasm has
diminished somewhat.

583
00:17:55,550 --> 00:17:57,200
Are they useful?
Saris: It fluctuates.

584
00:17:57,200 --> 00:18:01,355

So the synvisc or
the other brands,

585

00:18:01,355 --> 00:18:02,930
Viscosupplementation

586

00:18:02,930 --> 00:18:03,980
that some patients called

587

00:18:03,980 --> 00:18:05,570
a rooster comb injections,

588

00:18:05,570 --> 00:18:08,510
also have an efficacy
of about 40%.

589

00:18:08,510 --> 00:18:10,040
There's a

590

00:18:10,040 --> 00:18:12,140
challenge understanding the
literature because

591

00:18:12,140 --> 00:18:13,640
there's a lot of
competition between

592

00:18:13,640 --> 00:18:15,650
companies saying mine
is better than yours.

593

00:18:15,650 --> 00:18:17,360
And the comparative trials,

594

00:18:17,360 --> 00:18:18,380
like you said before,

595

00:18:18,380 --> 00:18:19,820
the jury is still
out on them.

596

00:18:19,820 --> 00:18:22,370

There are not many
side effects and if

597

00:18:22,370 --> 00:18:23,870
the insurance
company pays and the

598

00:18:23,870 --> 00:18:25,910
patient understands
the expectations,

599

00:18:25,910 --> 00:18:27,560
I think they do
have a place in

600

00:18:27,560 --> 00:18:29,915
more chronically
painful knees,

601

00:18:29,915 --> 00:18:32,060
where the flare up
has been treated by

602

00:18:32,060 --> 00:18:34,565
rest or by corticosteroids
or NSAIDs.

603

00:18:34,565 --> 00:18:36,680
And then if this
grinding knee pain is

604

00:18:36,680 --> 00:18:39,050
something that
hurts the patient,

605

00:18:39,050 --> 00:18:41,240
there is a role for
viscosupplementation

606

00:18:41,240 --> 00:18:43,055
but it should not
be overstated.

607

00:18:43,055 --> 00:18:44,615
Chutka: And then finally, how about

608
00:18:44,615 --> 00:18:45,755
knee arthroplasty?

609
00:18:45,755 --> 00:18:48,620
When is it indicated
that we go to surgery?

610
00:18:48,620 --> 00:18:50,480
Saris: Yeah, that's a very doctor

611
00:18:50,480 --> 00:18:52,235
and patient
specific choice.

612
00:18:52,235 --> 00:18:54,080
I would say overall,

613
00:18:54,080 --> 00:18:55,790
there's a tendency to do

614
00:18:55,790 --> 00:18:57,470
arthroplasty in
younger patients at

615
00:18:57,470 --> 00:18:59,270
the moment that we
should probably

616
00:18:59,270 --> 00:19:00,860
try to steer away from.

617
00:19:00,860 --> 00:19:02,240
The ideal patient is the

618
00:19:02,240 --> 00:19:05,825
74-year-old with
a BMI of 26.

619

00:19:05,825 --> 00:19:07,880
She, she can't get around

620
00:19:07,880 --> 00:19:09,740
the way she wanted
to do before

621
00:19:09,740 --> 00:19:11,600
and we can help
those patients very

622
00:19:11,600 --> 00:19:14,090
well if pain is
their main reason.

623
00:19:14,090 --> 00:19:16,190
The 52-year-old
factory worker

624
00:19:16,190 --> 00:19:17,480
who still needs to
work a couple of

625
00:19:17,480 --> 00:19:21,050
years until he or she
is able to retire.

626
00:19:21,050 --> 00:19:23,030
And who wants to
bowl and go ice

627
00:19:23,030 --> 00:19:25,760
fishing and have an
active weekend life.

628
00:19:25,760 --> 00:19:27,320
That's not such a
good candidate,

629
00:19:27,320 --> 00:19:29,795
but in short, pain.

630
00:19:29,795 --> 00:19:31,985

Every day that wakes
you up at night.

631

00:19:31,985 --> 00:19:34,700
People can't walk more
than a few blocks if

632

00:19:34,700 --> 00:19:36,410
people use pain medication

633

00:19:36,410 --> 00:19:38,060
and walking aids to do so,

634

00:19:38,060 --> 00:19:40,220
those are usually quite
serious candidates

635

00:19:40,220 --> 00:19:42,350
and they should
have x-ray changes.

636

00:19:42,350 --> 00:19:43,880
A patient with
severe knee pain,

637

00:19:43,880 --> 00:19:45,080
but a normal X-ray,

638

00:19:45,080 --> 00:19:46,400
you need to look further.

639

00:19:46,400 --> 00:19:47,390
You need to look
at the hips,

640

00:19:47,390 --> 00:19:48,410
you need to look
at the back.

641

00:19:48,410 --> 00:19:48,950
You need to look

642

00:19:48,950 --> 00:19:50,750
at inflammatory
disease because

643

00:19:50,750 --> 00:19:51,950
a normal x-ray usually

644

00:19:51,950 --> 00:19:54,200
doesn't mean osteoarthritis
as you know.

645

00:19:54,200 --> 00:19:56,630
Chutka: I want to turn just
a little bit to

646

00:19:56,630 --> 00:19:58,505
another area of
your expertise.

647

00:19:58,505 --> 00:20:00,020
And that's what
the regenerative

648

00:20:00,020 --> 00:20:01,880
medicine role will play in

649

00:20:01,880 --> 00:20:03,200
managing osteoarthritis, there is

650

00:20:03,200 --> 00:20:04,670
some pretty exciting
information

651

00:20:04,670 --> 00:20:05,585
regarding this.

652

00:20:05,585 --> 00:20:07,310
Saris: Yeah, there again,
I think we should

653

00:20:07,310 --> 00:20:09,125
go back to what we
talked about earlier.

654
00:20:09,125 --> 00:20:10,490
There's two age groups.

655
00:20:10,490 --> 00:20:12,200
So in the young
patients that have

656
00:20:12,200 --> 00:20:14,255
cartilage damage or
meniscus damage.

657
00:20:14,255 --> 00:20:16,430
Regenerative medicine
is cell-based therapy

658
00:20:16,430 --> 00:20:18,500
can restore their
articular cartilage and

659
00:20:18,500 --> 00:20:20,060
we can improve
the outcome of

660
00:20:20,060 --> 00:20:21,290
meniscus repair in young

661
00:20:21,290 --> 00:20:22,880
patients with
healthy tissue.

662
00:20:22,880 --> 00:20:25,235
We can culture their
cells or we can develop

663
00:20:25,235 --> 00:20:28,010
new one-stage technology
where we mix

664
00:20:28,010 --> 00:20:29,825
their old
recycled cells with

665
00:20:29,825 --> 00:20:32,465
allogeneic MSCs
from the MSC bank.

666
00:20:32,465 --> 00:20:33,920
And within one surgery

667
00:20:33,920 --> 00:20:35,585
for a tenth of the price,

668
00:20:35,585 --> 00:20:37,985
we can now fix the
hole in the cartilage.

669
00:20:37,985 --> 00:20:41,150
These are still ongoing
FDA monitor trials,

670
00:20:41,150 --> 00:20:42,875
but I agree with you,

671
00:20:42,875 --> 00:20:45,080
these are important
new developments.

672
00:20:45,080 --> 00:20:47,180
On the other side
of the spectrum,

673
00:20:47,180 --> 00:20:49,640
you can use growth factors

674
00:20:49,640 --> 00:20:51,680
and cytokines from the
patient's own blood or

675
00:20:51,680 --> 00:20:53,630
from bone marrow to improve

676
00:20:53,630 --> 00:20:56,210
the wound healing response
in osteoarthritis.

677
00:20:56,210 --> 00:20:57,845
Osteoarthritis doesn't

678
00:20:57,845 --> 00:20:59,660
threaten our life
and therefore,

679
00:20:59,660 --> 00:21:02,720
evolution or the
body, the biology,

680
00:21:02,720 --> 00:21:04,160
hasn't catered us with

681
00:21:04,160 --> 00:21:06,320
a system to fight the
pain of osteoarthritis.

682
00:21:06,320 --> 00:21:09,230
But we are trying. You
can measure cytokines,

683
00:21:09,230 --> 00:21:10,610
you can measure MSCs in

684
00:21:10,610 --> 00:21:12,905
the synovial fluid of
arthritis patients,

685
00:21:12,905 --> 00:21:14,300
but the levels
are too low for

686
00:21:14,300 --> 00:21:15,890
it to have a
healing effect.

687
00:21:15,890 --> 00:21:18,199
Now we can use
cultured MSCs

688

00:21:18,199 --> 00:21:20,870
or MSCs from the
patient themselves to

689
00:21:20,870 --> 00:21:23,060
administer them to their
arthritic joint to

690
00:21:23,060 --> 00:21:24,200
help mitigate the pain

691
00:21:24,200 --> 00:21:25,940
and the inflammatory
process.

692
00:21:25,940 --> 00:21:28,460
Those are still under
investigation as well.

693
00:21:28,460 --> 00:21:30,380
But I think the horizon
for treatment is

694
00:21:30,380 --> 00:21:32,690
probably within
the next 2 and 3 years.

695
00:21:32,690 --> 00:21:34,070
And in institutions like

696
00:21:34,070 --> 00:21:35,300
ourselves here at Mayo,

697
00:21:35,300 --> 00:21:36,650
we have ongoing trials

698
00:21:36,650 --> 00:21:38,060
for osteoarthritis
of the knee,

699
00:21:38,060 --> 00:21:40,115
osteoarthritis of
the hip and for

700
00:21:40,115 --> 00:21:41,780
surgical repair
with cells of

701
00:21:41,780 --> 00:21:44,135
young patients with
defects in their joints.

702
00:21:44,135 --> 00:21:45,560
Chutka: So are you talking about

703
00:21:45,560 --> 00:21:48,095
small focal defects
and cartilage

704
00:21:48,095 --> 00:21:50,480
or the patient who has

705
00:21:50,480 --> 00:21:51,770
pretty much
wiped out all of

706
00:21:51,770 --> 00:21:53,315
their cartilage, they
have bone on bone.

707
00:21:53,315 --> 00:21:55,610
Saris: Yeah, so both. The
focal defects

708
00:21:55,610 --> 00:21:57,410
in the younger patients
we can treat with

709
00:21:57,410 --> 00:22:00,230
cell-based surgical
technology and

710
00:22:00,230 --> 00:22:04,130
the patients with pain
related to grade 3 and 4.

711
00:22:04,130 --> 00:22:06,305
So bone on bone or a
little before that,

712
00:22:06,305 --> 00:22:08,210
we can treat with
injection therapy

713
00:22:08,210 --> 00:22:10,070
based on cellular response,

714
00:22:10,070 --> 00:22:11,510
PRP and bone marrow

715
00:22:11,510 --> 00:22:13,250
aspirate concentrate
and some others

716
00:22:13,250 --> 00:22:14,615
that are under development.

717
00:22:14,615 --> 00:22:17,300
So we have two
areas of challenge.

718
00:22:17,300 --> 00:22:19,235
Solving osteoarthritic pain,

719
00:22:19,235 --> 00:22:20,990
because I don't
think we can reverse

720
00:22:20,990 --> 00:22:23,915
osteoarthritis, and
preemptively treating

721
00:22:23,915 --> 00:22:25,220
joint damage so it doesn't

722
00:22:25,220 --> 00:22:27,200
progress or doesn't
progress as quickly.

723
00:22:27,200 --> 00:22:28,880
And for both,
regenerative medicine

724
00:22:28,880 --> 00:22:30,365
has exciting new options.

725
00:22:30,365 --> 00:22:32,900
Some of them are
established treatments,

726
00:22:32,900 --> 00:22:35,840
therapies that are
insurance covered now.

727
00:22:35,840 --> 00:22:37,460
So cartilage cell therapy

728
00:22:37,460 --> 00:22:39,020
is something we can
do at Mayo Clinic

729
00:22:39,020 --> 00:22:42,350
with insurance covered
cartilage repair and

730
00:22:42,350 --> 00:22:44,855
the one-stage
technologies under FDA,

731
00:22:44,855 --> 00:22:46,220
FDA evaluation.

732
00:22:46,220 --> 00:22:47,840
That's an improvement for

733
00:22:47,840 --> 00:22:49,100
the patient because
they only need

734
00:22:49,100 --> 00:22:51,560

one surgery, and the
injection therapy

735
00:22:51,560 --> 00:22:53,750
is under scrutiny
and investigation.

736
00:22:53,750 --> 00:22:55,220
But I do expect
that some of

737
00:22:55,220 --> 00:22:56,330
those therapies will make

738
00:22:56,330 --> 00:22:57,800
it into standard of care.

739
00:22:57,800 --> 00:22:59,330
They will improve
what we can do

740
00:22:59,330 --> 00:23:01,070
for the arthritic
patient as well.

741
00:23:01,070 --> 00:23:02,960
Chutka: We've had so little to

742
00:23:02,960 --> 00:23:05,570
offer our patients
with osteoarthritis,

743
00:23:05,570 --> 00:23:07,790
analgesics,
antiinflammatory medicines,

744
00:23:07,790 --> 00:23:10,564
physical therapy, and
ultimately surgery.

745
00:23:10,564 --> 00:23:13,190
So this is a very
attractive alternative

746
00:23:13,190 --> 00:23:14,720
that hopefully
will give patients

747
00:23:14,720 --> 00:23:16,640
some real benefit.
Saris: I agree.

748
00:23:16,640 --> 00:23:17,810
And at the same time,

749
00:23:17,810 --> 00:23:19,010
there's also a
threat because

750
00:23:19,010 --> 00:23:20,090
we do see what I now

751
00:23:20,090 --> 00:23:22,730
sometimes fear are
stem cell hopefuls.

752
00:23:22,730 --> 00:23:24,710
And these are 93
year old people

753
00:23:24,710 --> 00:23:26,180
who send us emails
and say Oh,

754
00:23:26,180 --> 00:23:27,560
can I please have
stem cells for

755
00:23:27,560 --> 00:23:28,730
my low back pain or can I

756
00:23:28,730 --> 00:23:30,440
please have stem
cells for my knee?

757

00:23:30,440 --> 00:23:32,390
And I even see
patients who have been

758
00:23:32,390 --> 00:23:34,100
treated and have
spent many,

759
00:23:34,100 --> 00:23:37,160
many thousands of
dollars in non,

760
00:23:37,160 --> 00:23:39,680
I would say, reliable

761
00:23:39,680 --> 00:23:41,570
stem cell clinics
around the world.

762
00:23:41,570 --> 00:23:43,370
And, and I think

763
00:23:43,370 --> 00:23:44,480
we should protect
patients from

764
00:23:44,480 --> 00:23:45,560
that and make
sure that we have

765
00:23:45,560 --> 00:23:47,900
good information for
them to rely upon,

766
00:23:47,900 --> 00:23:49,850
like your podcasts and
other information that

767
00:23:49,850 --> 00:23:51,905
comes from Mayo Clinic
and other situations.

768
00:23:51,905 --> 00:23:53,810

Because there are
developments.

769
00:23:53,810 --> 00:23:54,650
And we need to make

770
00:23:54,650 --> 00:23:56,000
sure that those
developments

771
00:23:56,000 --> 00:23:57,680
are not hindered by

772
00:23:57,680 --> 00:23:59,390
some of the bad
stories that come from

773
00:23:59,390 --> 00:24:01,610
this stem cell hocus
pocus at the same time.

774
00:24:01,610 --> 00:24:02,840
And that's why
the Center for

775
00:24:02,840 --> 00:24:03,980
regenerative medicine and

776
00:24:03,980 --> 00:24:05,270
the orthopedics department,

777
00:24:05,270 --> 00:24:06,649
the physical rehabilitation

778
00:24:06,649 --> 00:24:07,880
medicine at Mayo are

779
00:24:07,880 --> 00:24:09,800
reliable partners
for good information

780
00:24:09,800 --> 00:24:11,960

that patients can
trust and follow.

781
00:24:11,960 --> 00:24:14,780
Chutka: Well, Daniel, let's
finish by asking

782
00:24:14,780 --> 00:24:17,135
you to summarize maybe
in a few points,

783
00:24:17,135 --> 00:24:18,980
some key features of

784
00:24:18,980 --> 00:24:21,890
knee pain in the adult
Saris: Yeah, I'll try Darryl.

785
00:24:21,890 --> 00:24:23,990
So I think that knee
pain in the adult is

786
00:24:23,990 --> 00:24:25,520
a very important quality of

787
00:24:25,520 --> 00:24:27,410
life driver and therefore

788
00:24:27,410 --> 00:24:28,880
we should take
it seriously.

789
00:24:28,880 --> 00:24:30,860
I think prevention
is the best one,

790
00:24:30,860 --> 00:24:33,260
so don't start
long distance

791
00:24:33,260 --> 00:24:34,970
running if you haven't
trained properly,

792
00:24:34,970 --> 00:24:37,160
if you're older
than is wise.

793
00:24:37,160 --> 00:24:39,230
Try to manage your
weight and try to

794
00:24:39,230 --> 00:24:41,345
manage overloading
your joints.

795
00:24:41,345 --> 00:24:43,010
And if you have
joint damage,

796
00:24:43,010 --> 00:24:44,840
see your local
doctor and talk to

797
00:24:44,840 --> 00:24:46,760
them about the various
treatment options

798
00:24:46,760 --> 00:24:48,905
because sometimes
it's better to treat

799
00:24:48,905 --> 00:24:51,620
early and have a long
time benefit from that,

800
00:24:51,620 --> 00:24:52,685
then come in too late

801
00:24:52,685 --> 00:24:54,920
because you are
managing it yourself.

802
00:24:54,920 --> 00:24:56,510
Don't trust the MRI

803
00:24:56,510 --> 00:24:57,740
if it says you have a tear,

804
00:24:57,740 --> 00:24:59,810
that doesn't mean
you need surgery

805
00:24:59,810 --> 00:25:03,800
and knee pain can be
debilitating at every age,

806
00:25:03,800 --> 00:25:05,180
it will disrupt
the quality of

807
00:25:05,180 --> 00:25:07,295
life and we are
here to help.

808
00:25:07,295 --> 00:25:09,410
Chutka: We've been
discussing knee pain

809
00:25:09,410 --> 00:25:10,880
with Dr. Daniel Saris,

810
00:25:10,880 --> 00:25:12,620
an orthopedist
at the Mayo Clinic

811
00:25:12,620 --> 00:25:14,030
in Rochester, Minnesota.

812
00:25:14,030 --> 00:25:15,410
Daniel, thank
you so much for

813
00:25:15,410 --> 00:25:16,775
sharing your
expertise with us.

814
00:25:16,775 --> 00:25:18,140

Saris: Thank you very much
for having me, Darryl.

815
00:25:18,140 --> 00:25:18,995
It was a pleasure.

816
00:25:18,995 --> 00:25:20,780
Chutka: You can now
listened over 100

817
00:25:20,780 --> 00:25:22,340
different medical
topics developed

818
00:25:22,340 --> 00:25:23,840
for primary care providers

819
00:25:23,840 --> 00:25:25,835
on Mayo Clinic
Talks podcasts.

820
00:25:25,835 --> 00:25:27,260
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favorite podcasting app.

822
00:25:30,395 --> 00:25:32,720
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Clinic Talks podcasts,

823
00:25:32,720 --> 00:25:33,995
please subscribe,

824
00:25:33,995 --> 00:25:36,900
stay healthy and
see you next week. [Music]