Dentures

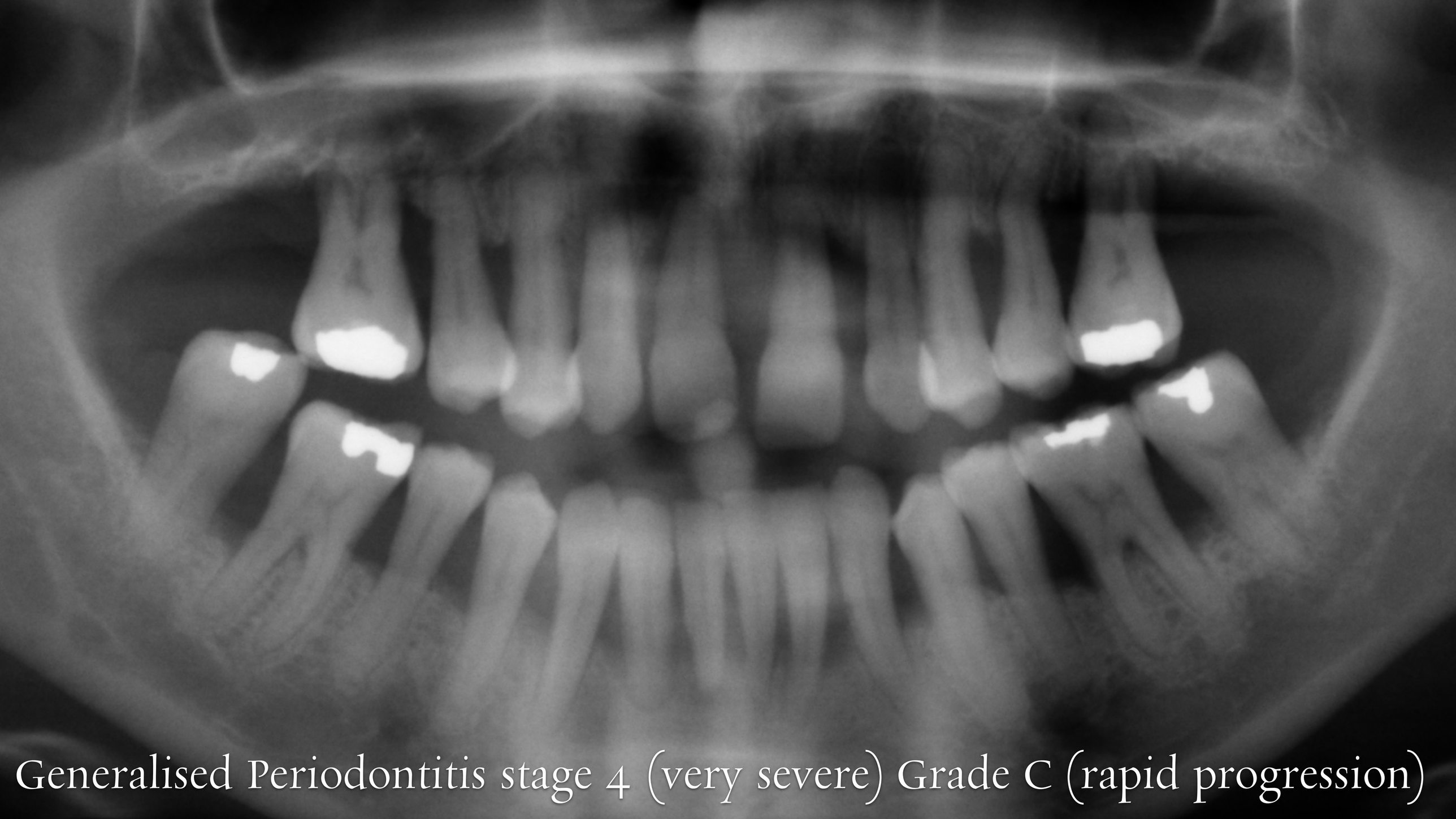
Giving our patients

great function and aethestics

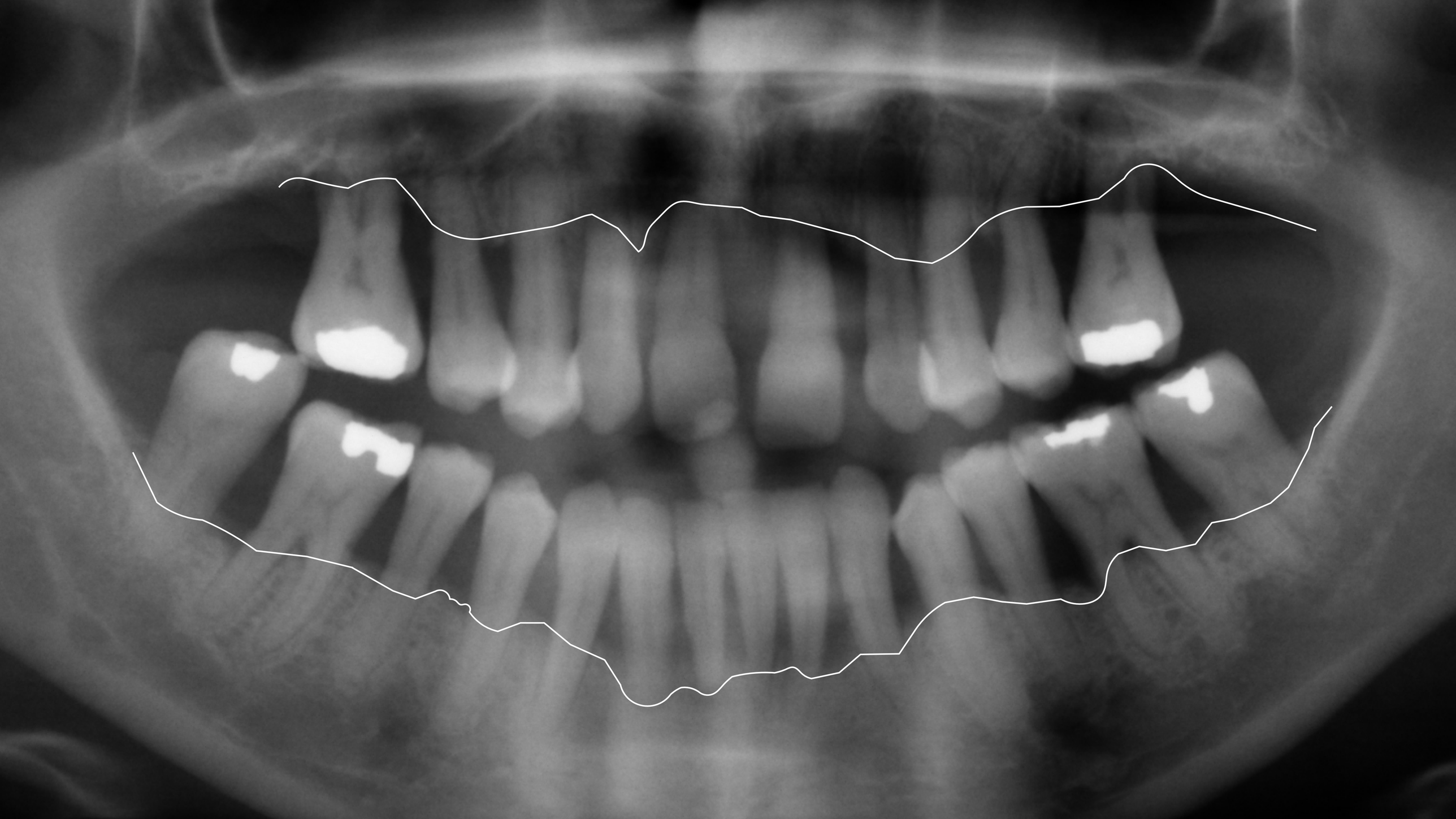
Finlay Sutton

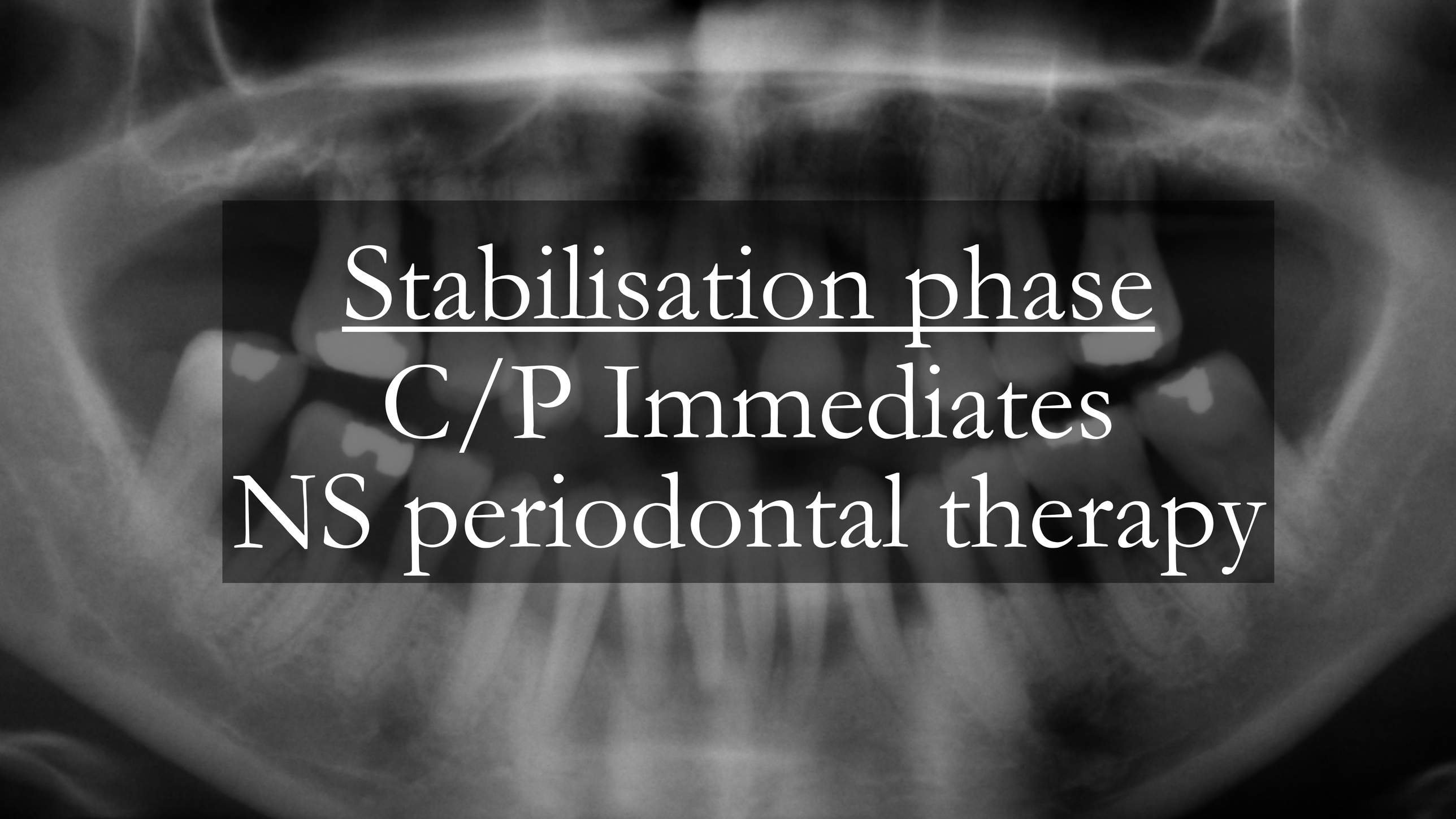
Donna

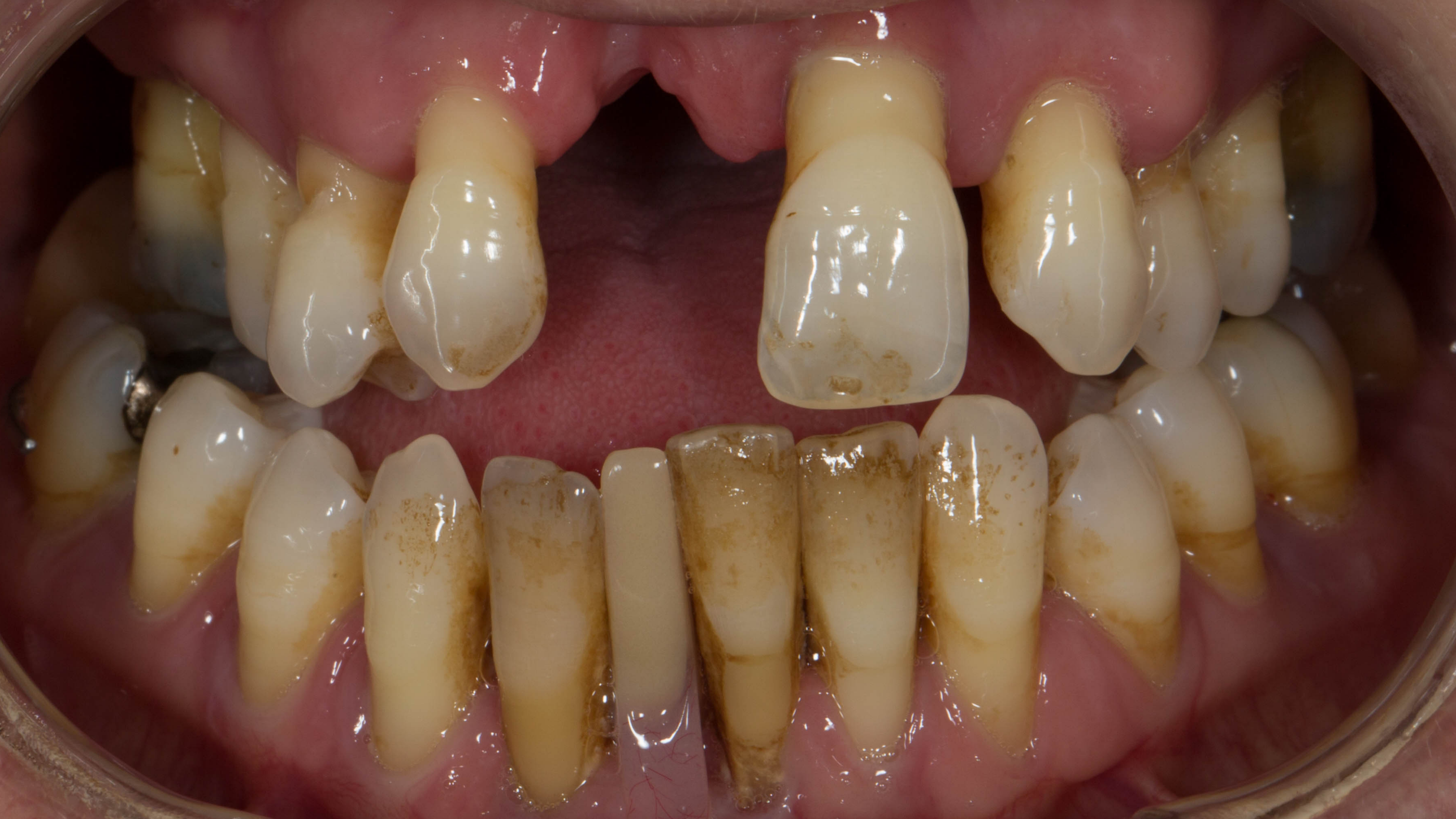

Generalised periodontitis stage 4 (very severe) Grade C (rapid progression)



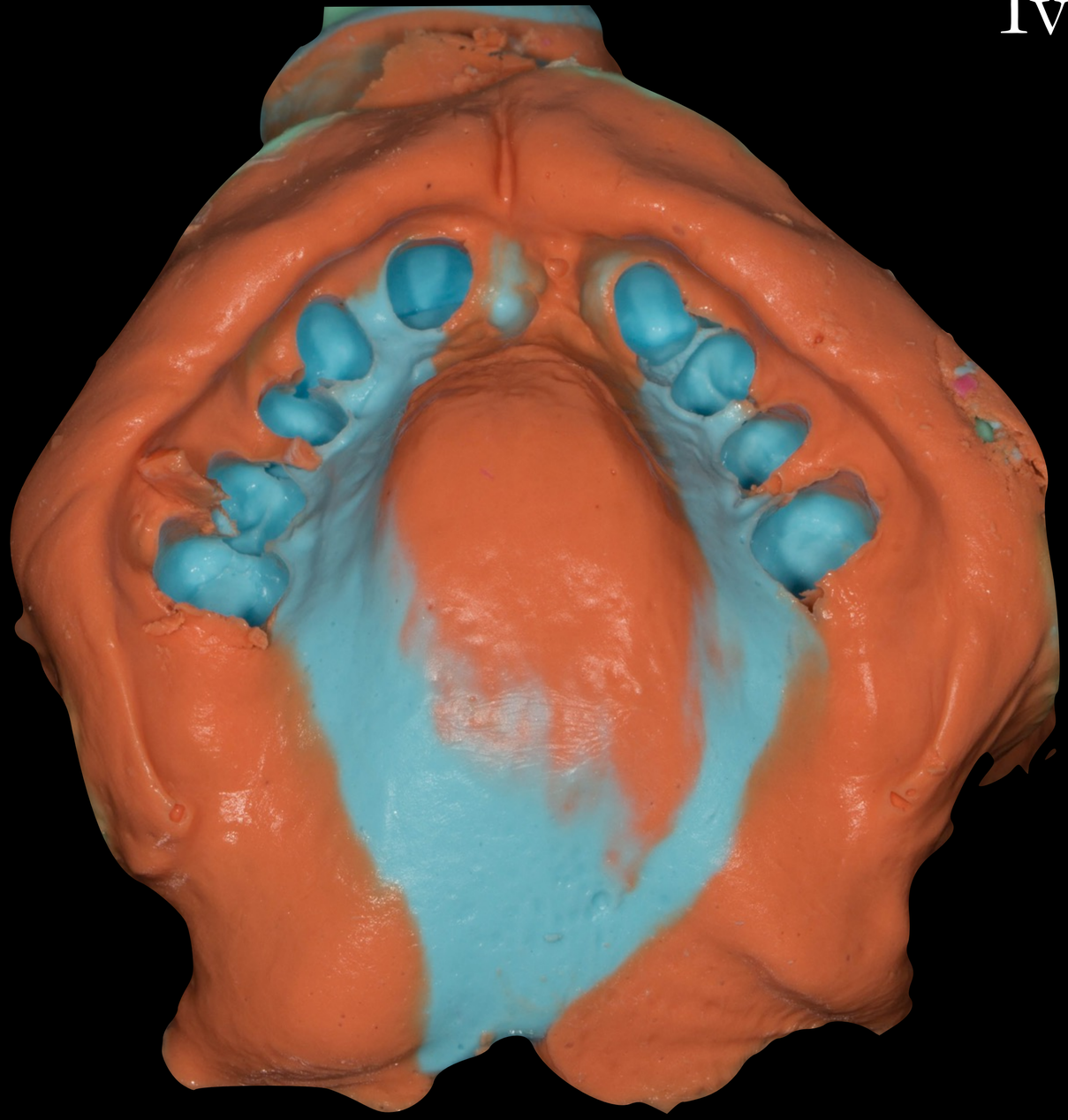
Generalised Periodontitis stage 4 (very severe) Grade C (rapid progression)

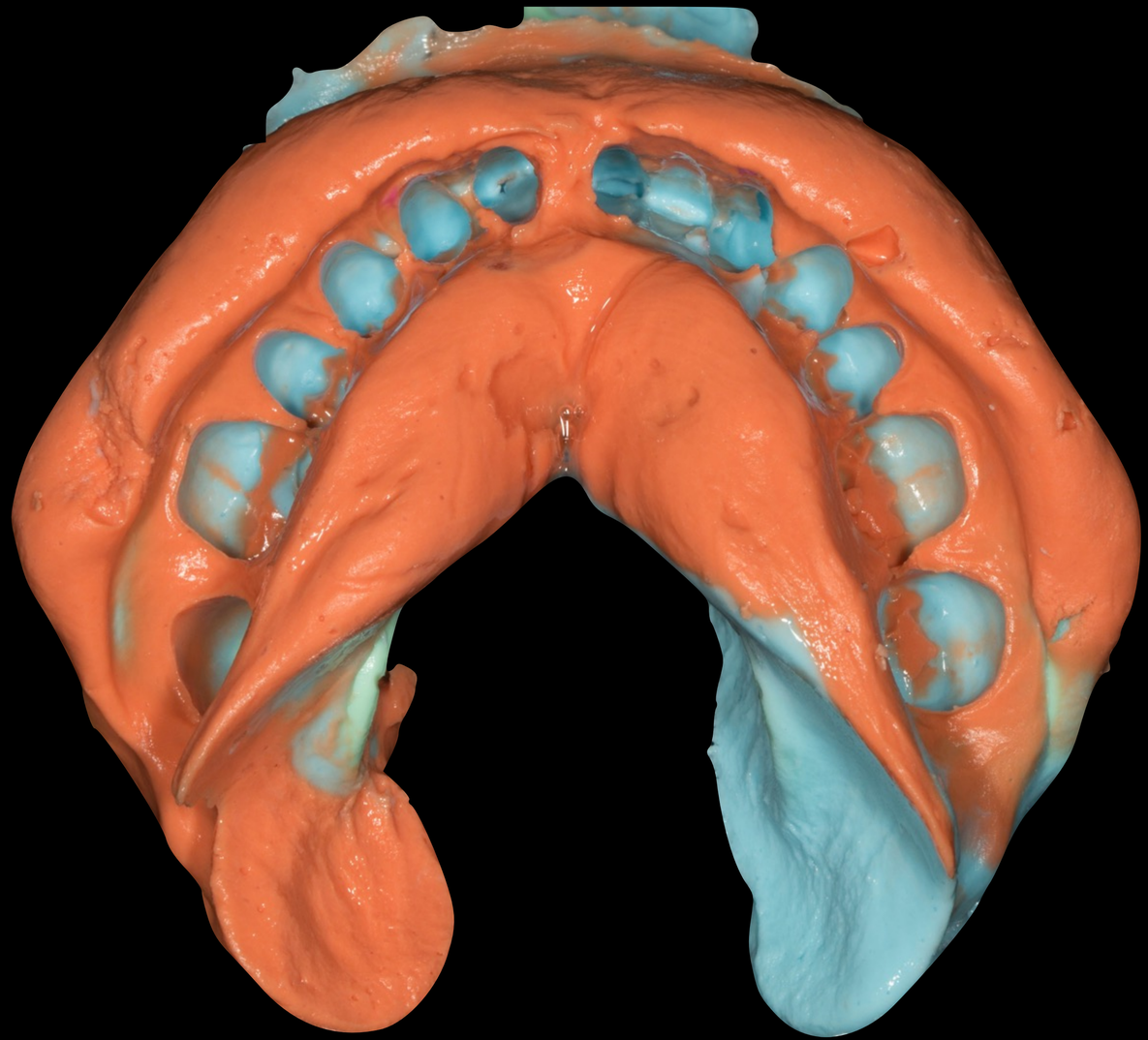


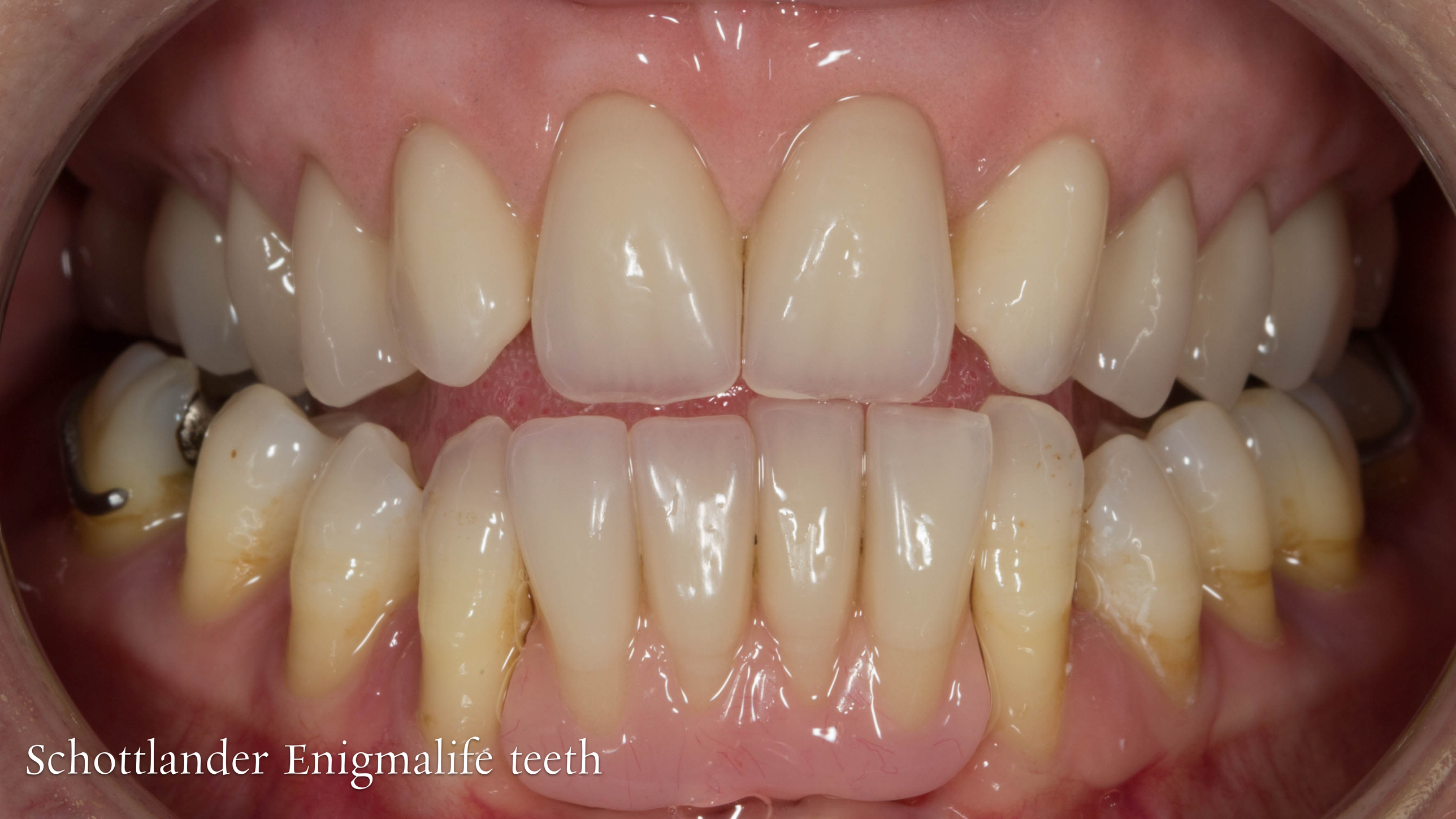

Stabilisation phase
C/P Immediates
NS periodontal therapy



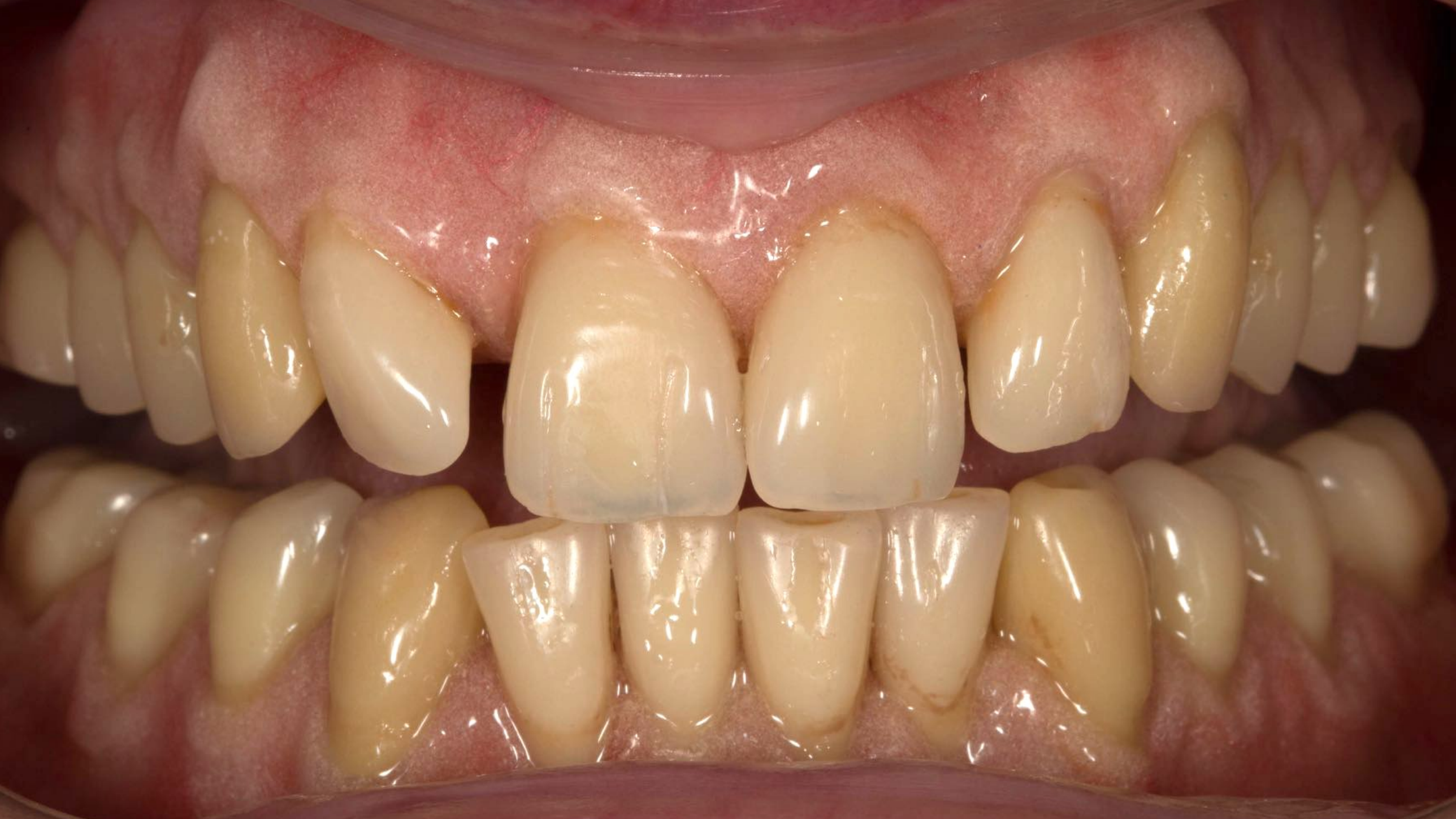
Ivoclar Vivadent – AccuDent XD






Schottlander Enigmalife teeth

I love doing this



Handouts -

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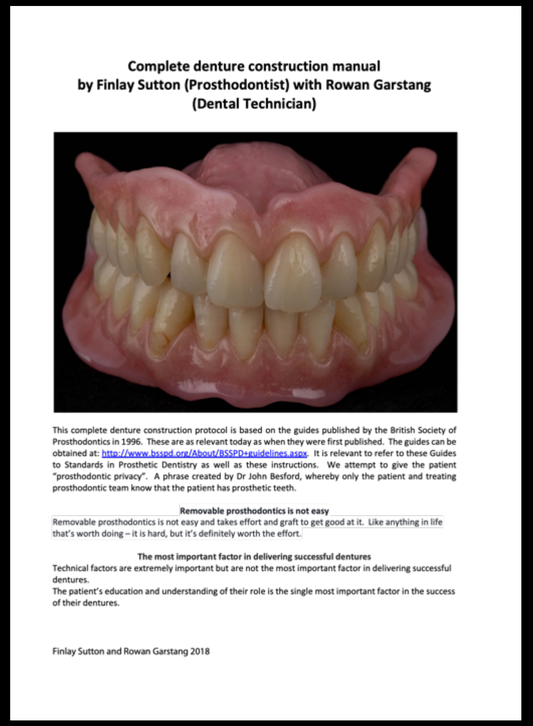

Complete denture construction manual
by Finlay Sutton (Prosthodontist) with Rowan Garstang
(Dental Technician)

This complete denture construction protocol is based on the guides published by the British Society of Prosthodontics in 1996. These are as relevant today as when they were first published. The guides can be obtained at: http://www.bsspd.org/About/BSSPD+guidelines.aspx. It is relevant to refer to these Guides to Standards in Prosthetic Dentistry as well as these instructions. We attempt to give the patient "prosthodontic privacy". A phrase created by Dr John Besford, whereby only the patient and treating prosthodontic team know that the patient has prosthetic teeth.

Removable prosthodontics is not easy

Removable prosthodontics is not easy and takes effort and graft to get good at it. Like anything in life that's worth doing – it is hard, but it's definitely worth the effort.

The most important factor in delivering successful dentures

Technical factors are extremely important but are not the most important factor in delivering successful dentures.
The patient's education and understanding of their role is the single most important factor in the success of their dentures.

Finlay Sutton and Rowan Garstang 2018

BDJ Aesthetic Dentistry Series | VERIFIABLE CPD PAPER PRACTICE

Aesthetic possibilities in removable prosthodontics. Part 1: the aesthetic spectrum from perfect to personal

J. N. Besford[1] and A. F. Sutton*[2]

In brief

The predicament of the denture patient, emotional and practical.	The importance of good inter-personal relations between the patient and the dental team, with the patient as team leader.	Why should we make dentures look like natural teeth?

Patients requiring dentures are getting older and as a result can be difficult to treat owing to various co-morbidities. This series of papers presents an overview of the processes involved in making removable dentures which the patient considers to be functionally and aesthetically successful. We hope not only to provide technical suggestions but also to address the issue of the clinician's, technician's and dental nurse's relationships with the dentally depleted patient. It is increasingly clear from defence organisation reports that this has a decisive effect on the success of this fundamentally difficult enterprise ('The only branch of dentistry in which you are trying to attach something to nothing' [Hubert Aiche]). It seems best to conduct the planning and the treatment itself as a co-production – the patient assuming responsibility for choosing between the treatment options offered and playing the leading role in making aesthetic decisions. Distinctions are drawn between the idealised whiter-than-white, 'nobody-in-particular', attention-seeking denture at one extreme, and the highly personalised, discreet and naturalistic denture at the other. Reproducing nature in this way is time consuming and therefore expensive, but many 'denture sufferers' see it as good value. Methods for creating the latter, which through its very normality switches off the social observer's attention, are explained in detail in papers two and three of this series. These papers are designed to help clinicians and technicians involved in providing removable prosthodontics improve the appearance of their dentures and increase their patients' aesthetic satisfaction. They are not scientific articles in the Popperian sense of advancing theories which are capable of being falsified. Instead, they are an amalgamation of 72 years of combined experience in providing removable dental prostheses. We have found this branch of dentistry immensely interesting and have on many occasions had the satisfaction of seeing our patients' lives changed for the better.

Introduction

'Of course, dentures are essentially social appliances.' Per-Olof Glantz.[1]

The predicament of the denture patient

When approaching the subject of dental prostheses for patients for whom fixed restorations are not a practical or even a best first option, the authors believe that it is important to consider the life circumstances of people who have lost many or all of their natural teeth. This is not only because of conventional nostrums advocating holistic dentistry – 'treat the whole patient, not just the mouth' – but also because the day-to-day experiences of people who wear complete dentures (or nearly-complete partial dentures) are radically different from those of our dentate patients. Although dentate patients may be concerned about the appearance of their natural teeth, some feeling that their teeth are too irregular, too dark, too worn down, have unwanted diastemas, etc, at least they still have their own teeth. In contrast, those obliged to wear dentures have often been subjected to more anxiety-producing, life-restricting and potentially humiliating experiences than dentate patients.

People deprived of all or most of their natural teeth, because of dentistry or the lack of it, often feel guilty.[2] They feel that they have lost one of life's battles and it was 'their own fault' (which is often not the case). To add to this symbolic loss and feeling of failure, denture wearers may live in constant fear of a variety of practical scenarios: that their denture could be seen to move in their mouth while speaking or eating, or worse still get knocked out of it by a collision in a public place; that it may fracture; that it may get mislaid while they are in hospital (especially when asked to remove it for an operation requiring a general anaesthetic), or lost while on holiday, swimming, etc. They often feel self-conscious if their speech is degraded by it, or they think it looks artificial. Many denture wearers also suffer chronic discomfort, loss of biting and chewing power, leading to restricted choices of food and the need to turn down invitations to restaurants and especially to meals at other people's homes, where they cannot choose 'safe' food.[3] These denture wearers can be called 'denture sufferers' to distinguish them from the many who manage to cope. Many complete denture sufferers feel inhibited with their sexual partners, their mouth becoming effectively a 'no go area'. Such common privations may be additional to any aesthetic shortcomings which they feel their artificial teeth and gums display.

The reason for our mentioning these other problems here is that dentists who do not regularly treat partly or totally edentulous people may be unaware of the abject depths to which denture sufferers can sink or, correspondingly, the jubilant heights to which they can be raised again by being provided with teeth which are comfortable, stable, permit satisfactory speech and mastication,

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BDJ Aesthetic Dentistry Series | VERIFIABLE CPD PAPER PRACTICE

Aesthetic possibilities in removable prosthodontics. Part 2: start with the face not the teeth when rehearsing lip support and tooth positions

J. N. Besford[1] and A. F. Sutton*[2]

In brief

Describes impression making to maximise retention, stability and soft tissue support by managing flange thickness.	Describes shaping the wax occlusal record rims to prescribe appropriate lip support and natural tooth positions.	Demonstrates the shape and extension of dentures giving optimum aesthetics.

Even dentures exhibiting superb aesthetics are of no use if they visibly move during speech and social intercourse. In this, the second paper of three on removable denture aesthetics, we describe impression making and shaping the wax occlusal record rims. Not only are the impressions important for producing dentures with maximum retention, stability and support, but their extensions and the thickness of their borders have a decisive influence on lip support and profile. This article shows how the contours of the definitive impressions and the wax rims are developed so as to prescribe the overall form of the replacement gums and teeth. Properly trimmed rims are in essence an early three-dimensional rehearsal, an opportunity for developing the patient's preferred lip support and natural positioning of the denture teeth at subsequent stages. They can also give an early indication of what speech will be like with the new dentures. Without this 3D clinical information, laboratory technicians have to guess where to put the teeth and have little option but to fall back on the stereotypes of their textbook training.

Denture production

'Of course, dentures are essentially social appliances.' Per-Olof Glantz.[1]

It is outside the scope of these articles to provide a step-by-step guide to state-of-the-art complete denture construction. However, producing complete dentures which look wonderful is pointless if they are unwearable owing to poor fit and function. To have a chance of working well in the physical sense, dentures must have sufficient stability for the patient not to be constantly reminded of their presence. And for that dentures must rely on their fitting surfaces, polished surfaces and occlusal surfaces being optimally shaped and positioned for each individual mouth.

Impression making

It is worth highlighting here our conclusion, from experience, that the quality of the primary impression is crucial in determining the quality of all subsequent stages. Linda Blakely puts it well: 'Developing a good primary impression may be seen as an investment'.[2]

Traditionally the edentulous impression process is thought of only as that which defines the 'denture bearing area', that which supports and retains 'the fit surface' of the denture. However, it is also possible to make simultaneous or consecutive impressions of the cheeks, lips and tongue as they move naturally when in contact with the superstructure of the denture (that is, the gums and the buccal and lingual surfaces of the teeth). We call the trayless version of this 'the French impression', because we learnt it from from a gifted French prosthodontist, Hubert Aiche. It is also known as a piezographic impression.

Denture retention and aesthetics

The first and most obvious connection between retention and aesthetics is that any movement of a denture which is visible to an onlooker amounts to an aesthetic disaster as well as a potentially humiliating social experience. This is what the wearers of dentures with unreliable retention usually fear most.

Denture retention has a second relevance to appearance: when the dentures are well retained, the visible anterior teeth may be placed in any position which is attractive and appropriate (personal) for the individual. Deep overbites and large overjets present no problem. This opens up the aesthetic possibilities for the patient/clinician team and allows the denture patient to have virtually any dental appearance he or she desires. And this in turn frees the dental team, time and cost permitting, from the constraints of stereotype 'on-the-ridge' denture set-ups and the classic 'false teeth' appearance.

Without access to the stabilising effects of overdenture abutments, natural or implanted, the retention of a conventional complete denture (in the presence of adequate saliva) will depend mainly upon the accuracy of its fit to the soft tissues. And this in turn will depend on the quality of the primary and secondary impressions.

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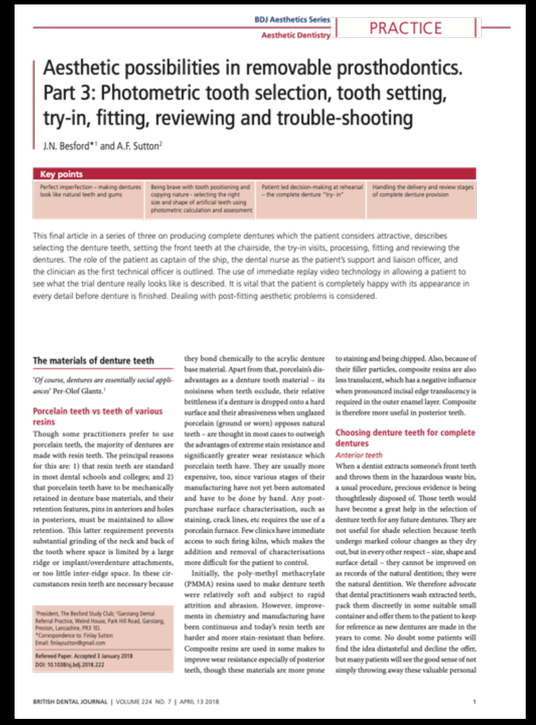

BDJ Aesthetics Series
Aesthetic Dentistry PRACTICE

Aesthetic possibilities in removable prosthodontics. Part 3: Photometric tooth selection, tooth setting, try-in, fitting, reviewing and trouble-shooting

J.N. Besford*[1] and A.F. Sutton[2]

Key points

Perfect imperfection – making dentures look like natural teeth and gums	Being brave with tooth positioning and copying nature – selecting the right size and shape of artificial teeth using photometric calculation and assessment	Patient led decision-making at rehearsal – the complete denture "try- in"	Handling the delivery and review stages of complete denture provision

This final article in a series of three on producing complete dentures which the patient considers attractive, describes selecting the denture teeth, setting the front teeth at the chairside, the try-in visits, processing, fitting and reviewing the dentures. The role of the patient as captain of the ship, the dental nurse as the patient's support and liaison officer, and the clinician as the first technical officer is outlined. The use of immediate replay video technology in allowing a patient to see what the trial denture really looks like is described. It is vital that the patient is completely happy with its appearance in every detail before denture is finished. Dealing with post-fitting aesthetic problems is considered.

The materials of denture teeth

'Of course, dentures are essentially social appliances' Per-Olof Glantz.[1]

Porcelain teeth vs teeth of various resins

Though some practitioners prefer to use porcelain teeth, the majority of dentures are made with resin teeth. The principal reasons for this are: 1) that resin teeth are standard in most dental schools and colleges; and 2) that porcelain teeth have to be mechanically retained in denture base materials, and their retention features, pins in anteriors and holes in posteriors, must be maintained to allow retention. This latter requirement prevents substantial grinding of the neck and back of the tooth where space is limited by a large ridge or implant/overdenture attachments, or too little inter-ridge space. In these circumstances resin teeth are necessary because they bond chemically to the acrylic denture base material. Apart from that, porcelain's disadvantages as a denture tooth material – its noisiness when teeth occlude, their relative brittleness if a denture is dropped onto a hard surface and their abrasiveness when unglazed porcelain (ground or worn) opposes natural teeth – are thought in most cases to outweigh the advantages of extreme stain resistance and significantly greater wear resistance which porcelain teeth have. They are usually more expensive, too, since various stages of their manufacturing have not yet been automated and have to be done by hand. Any post-purchase surface characterisation, such as staining, crack lines, etc requires the use of a porcelain furnace. Few clinics have immediate access to such firing kilns, which makes the addition and removal of characterisations more difficult for the patient to control.

Initially, the poly-methyl methacrylate (PMMA) resins used to make denture teeth were relatively soft and subject to rapid attrition and abrasion. However, improvements in chemistry and manufacturing have been continuous and today's resin teeth are harder and more stain-resistant than before. Composite resins are used in some makes to improve wear resistance especially of posterior teeth, though these materials are more prone to staining and being chipped. Also, because of their filler particles, composite resins are also less translucent, which has a negative influence when pronounced incisal edge translucency is required in the outer enamel layer. Composite is therefore more useful in posterior teeth.

Choosing denture teeth for complete dentures

Anterior teeth

When a dentist extracts someone's front teeth and throws them in the hazardous waste bin, a usual procedure, precious evidence is being thoughtlessly disposed of. Those teeth would have become a great help in the selection of denture teeth for any future dentures. They are not useful for shade selection because teeth undergo marked colour changes as they dry out, but in every other respect – size, shape and surface detail – they cannot be improved on as records of the natural dentition; they were the natural dentition. We therefore advocate that dental practitioners wash extracted teeth, pack them discreetly in some suitable small container and offer them to the patient to keep for reference as new dentures are made in the years to come. No doubt some patients will find the idea distasteful and decline the offer, but many patients will see the good sense of not simply throwing away these valuable personal

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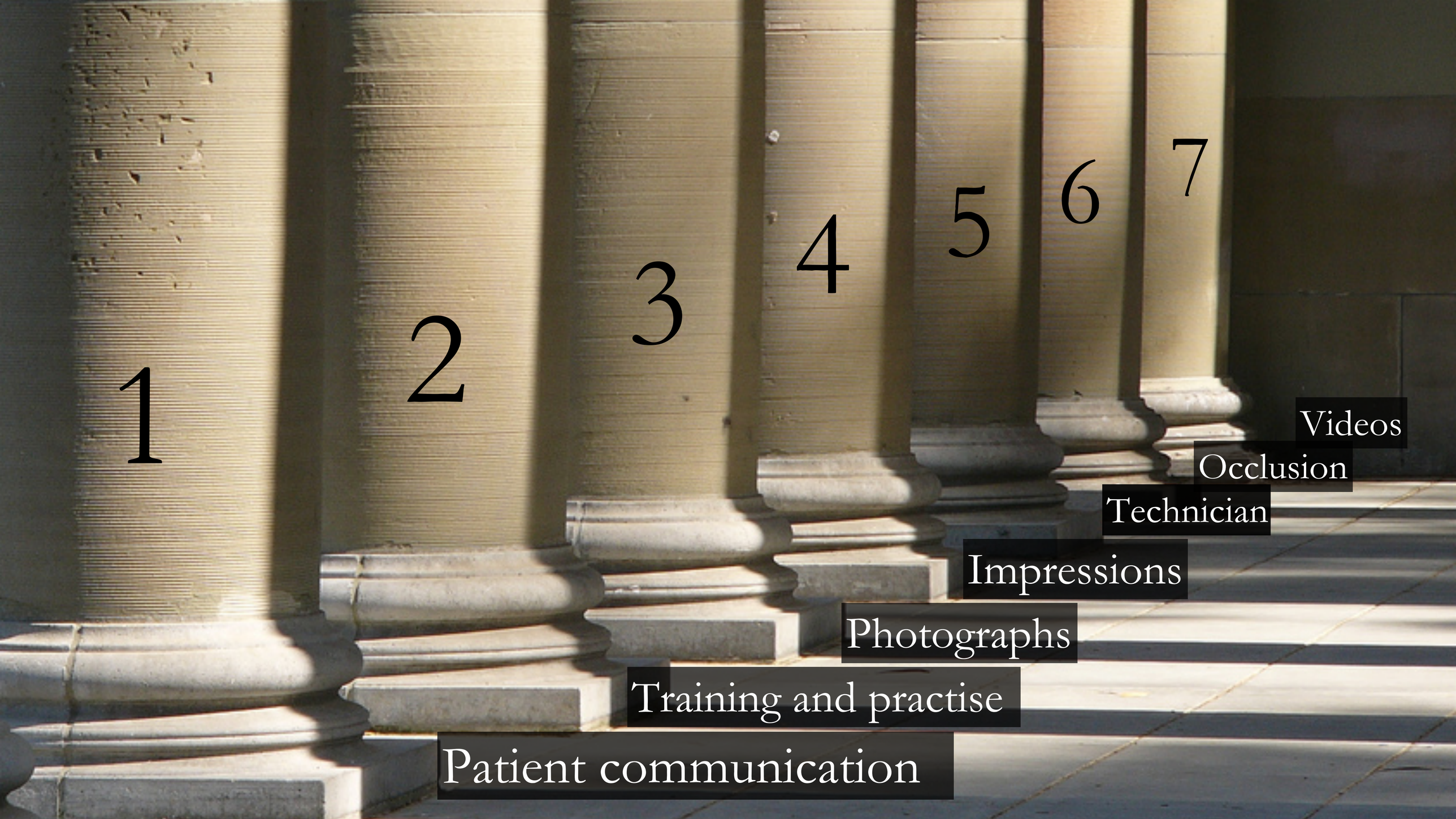
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Patient communication
Training and practise
Photographs
Impressions
Technician
Occlusion
Videos

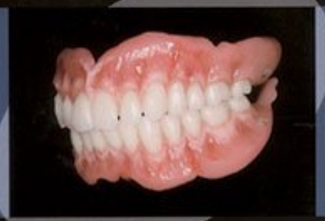
Dr Abe
Prosthodontist

4 Steps from Start to Finish

Mandibular Suction-Effective Denture and BPS: A Complete Guide

Jiro Abe/ Kyoko Kokubo/ Koji Sato

For All Types of Fully Edentulous Cases



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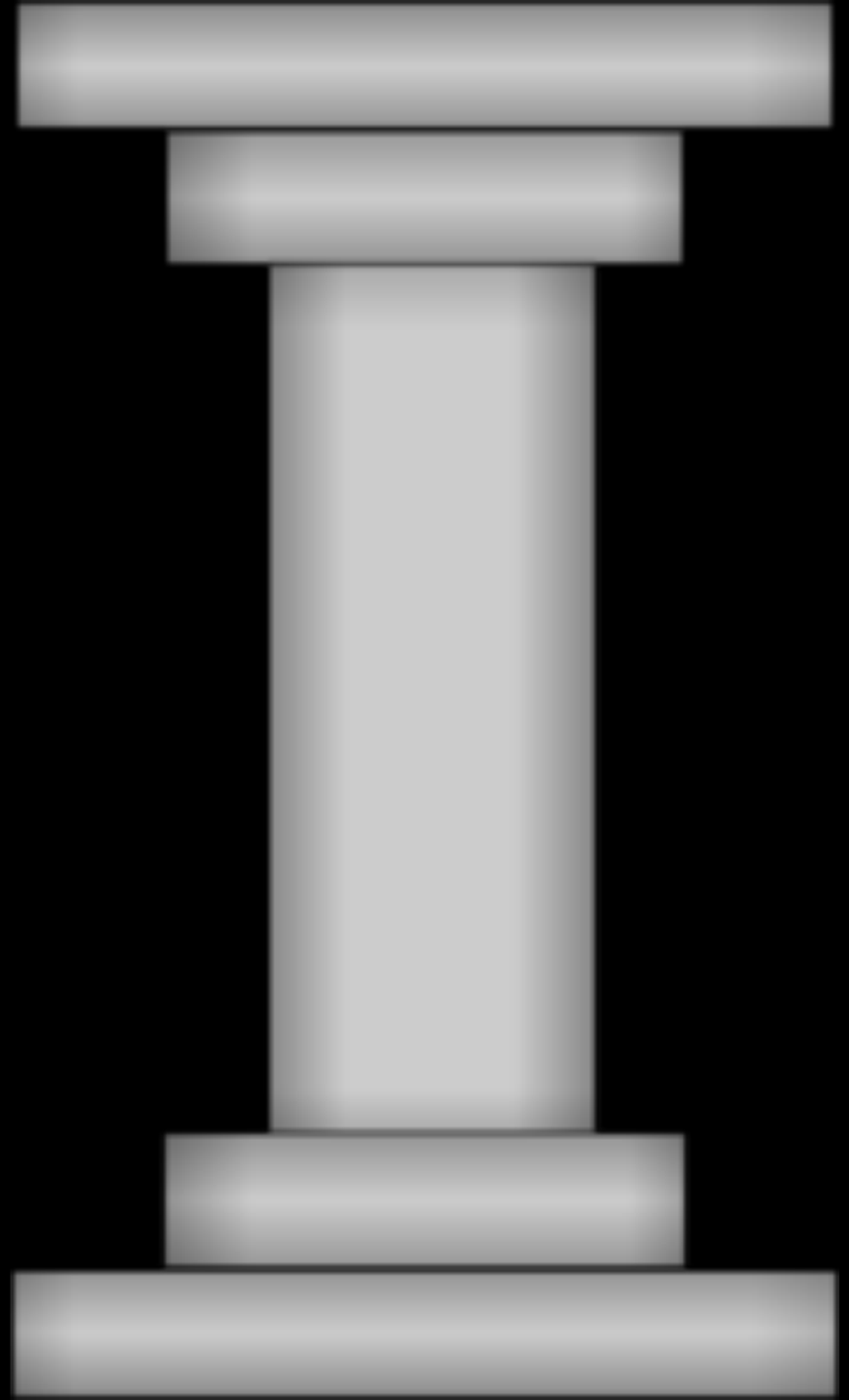
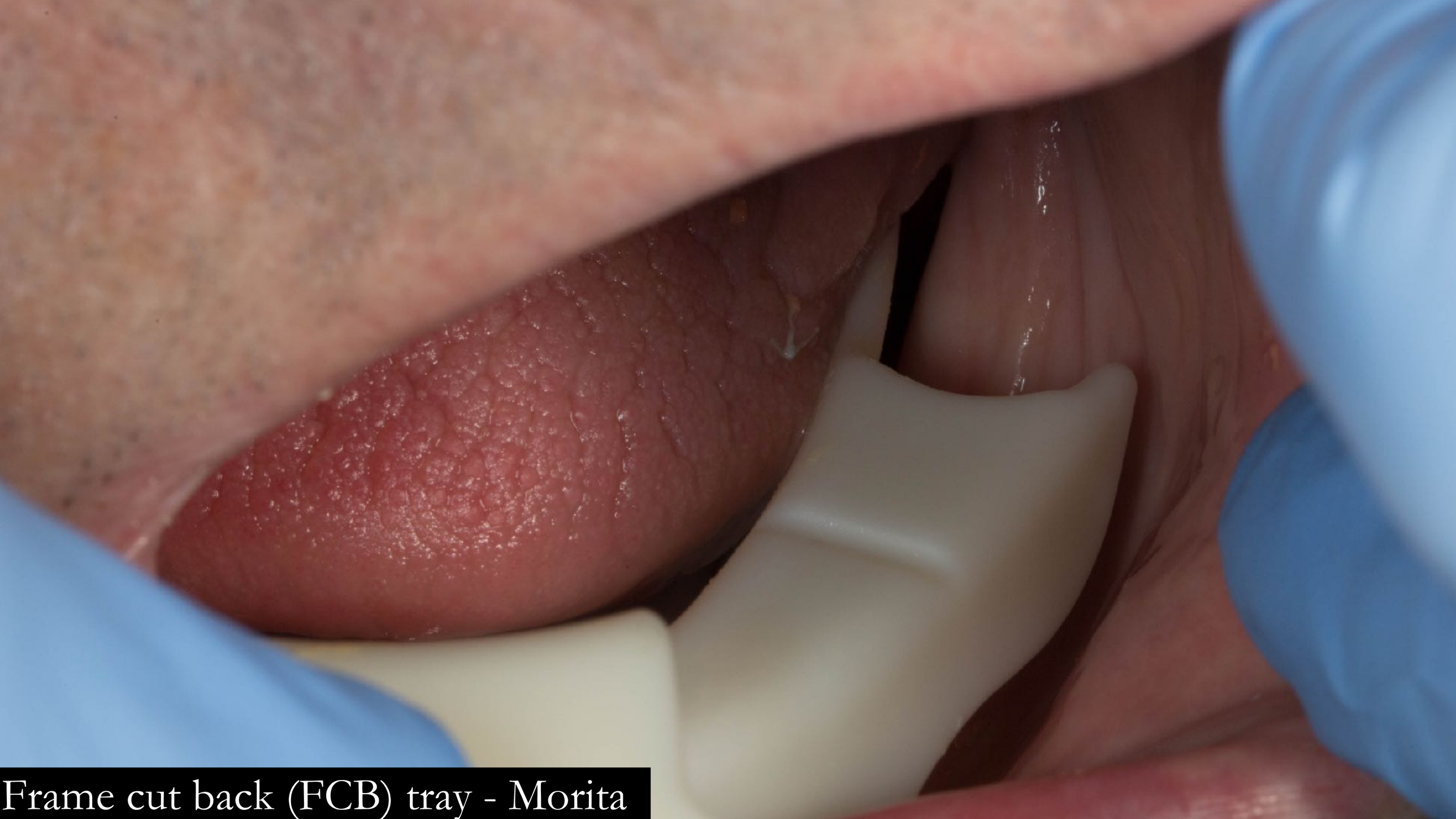
Mrs Kokubo
Dental technician

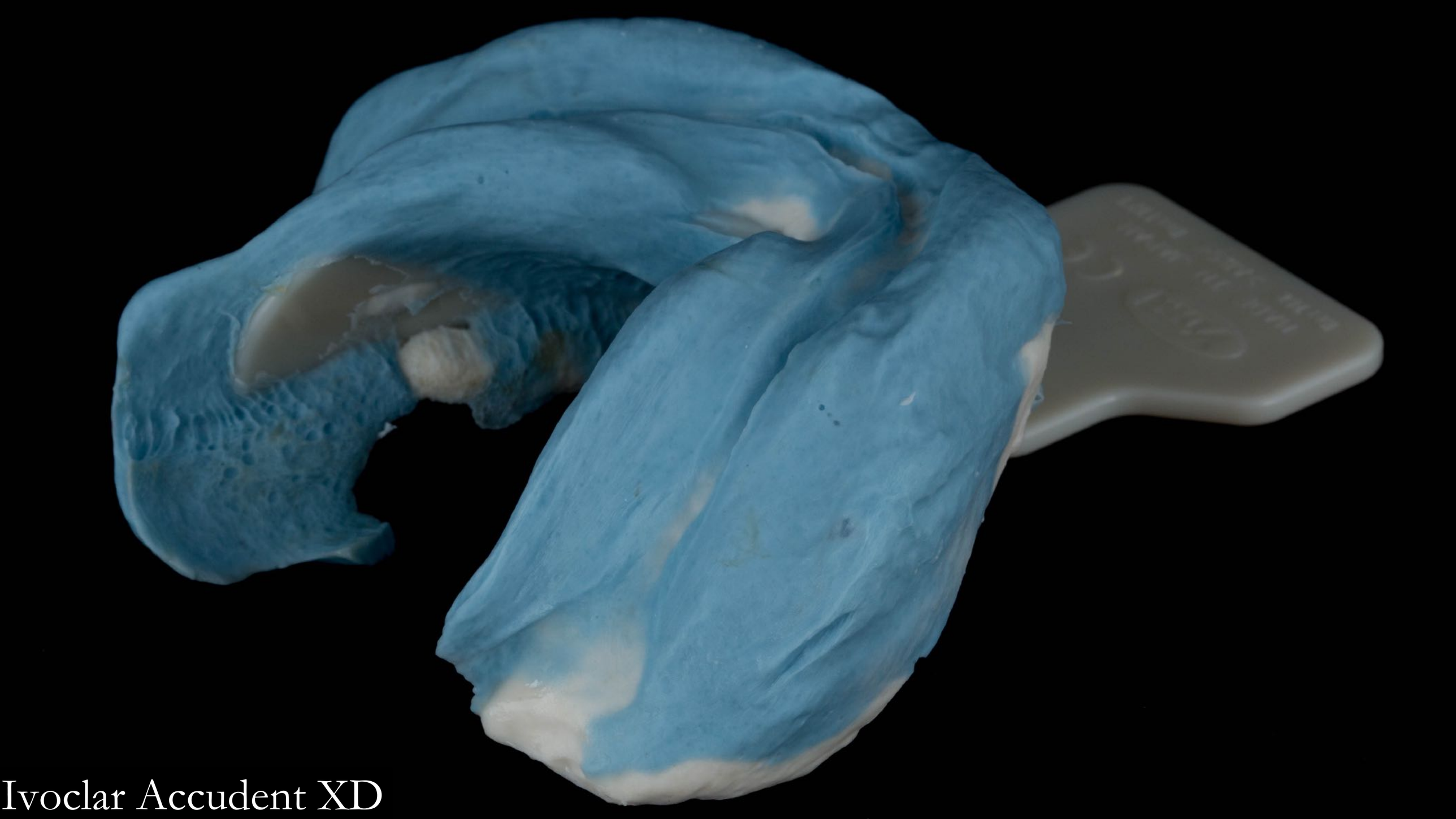


Impressions

Frame cut back (FCB) tray - Morita



Frame cut back (FCB) tray - Morita



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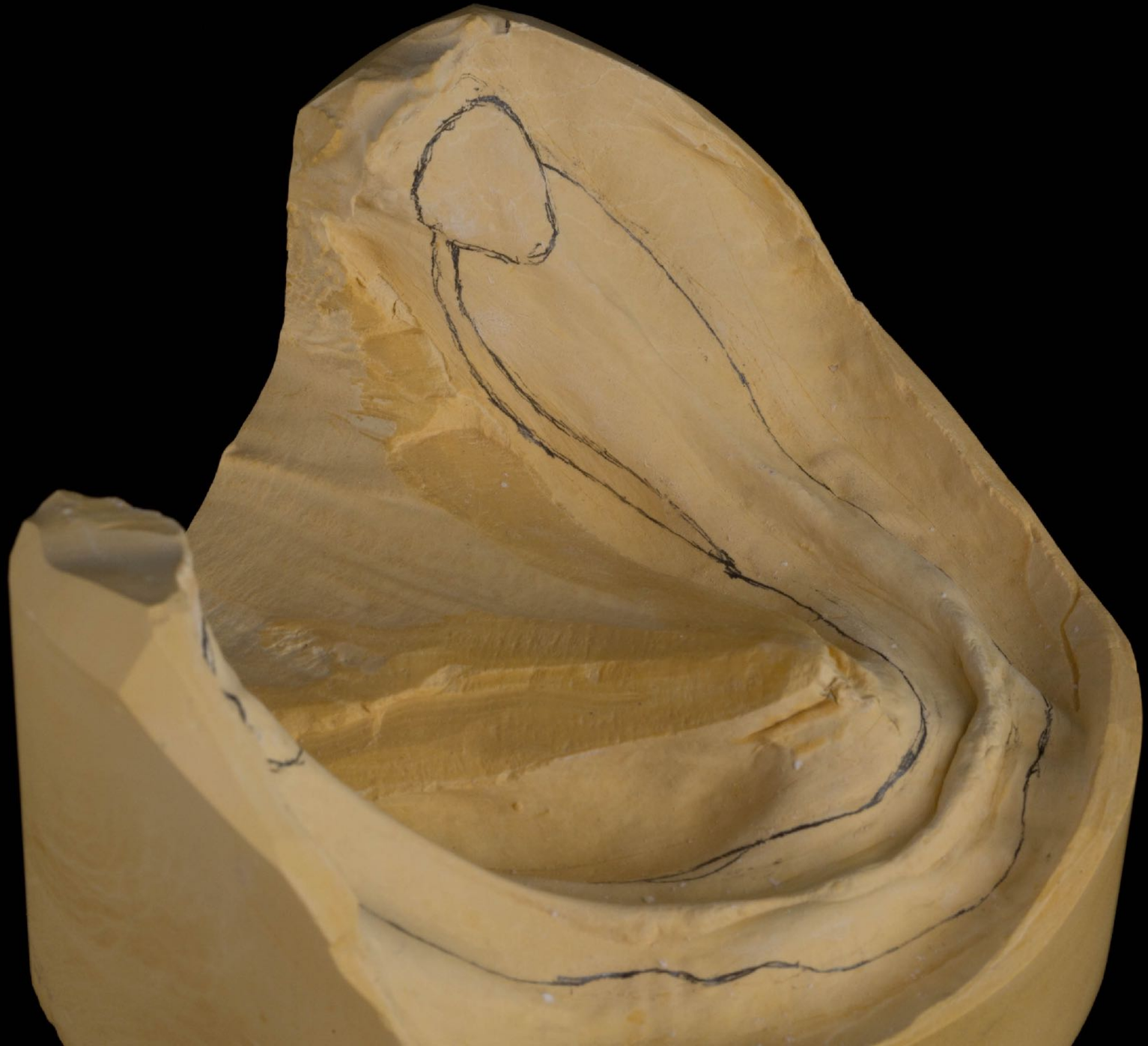


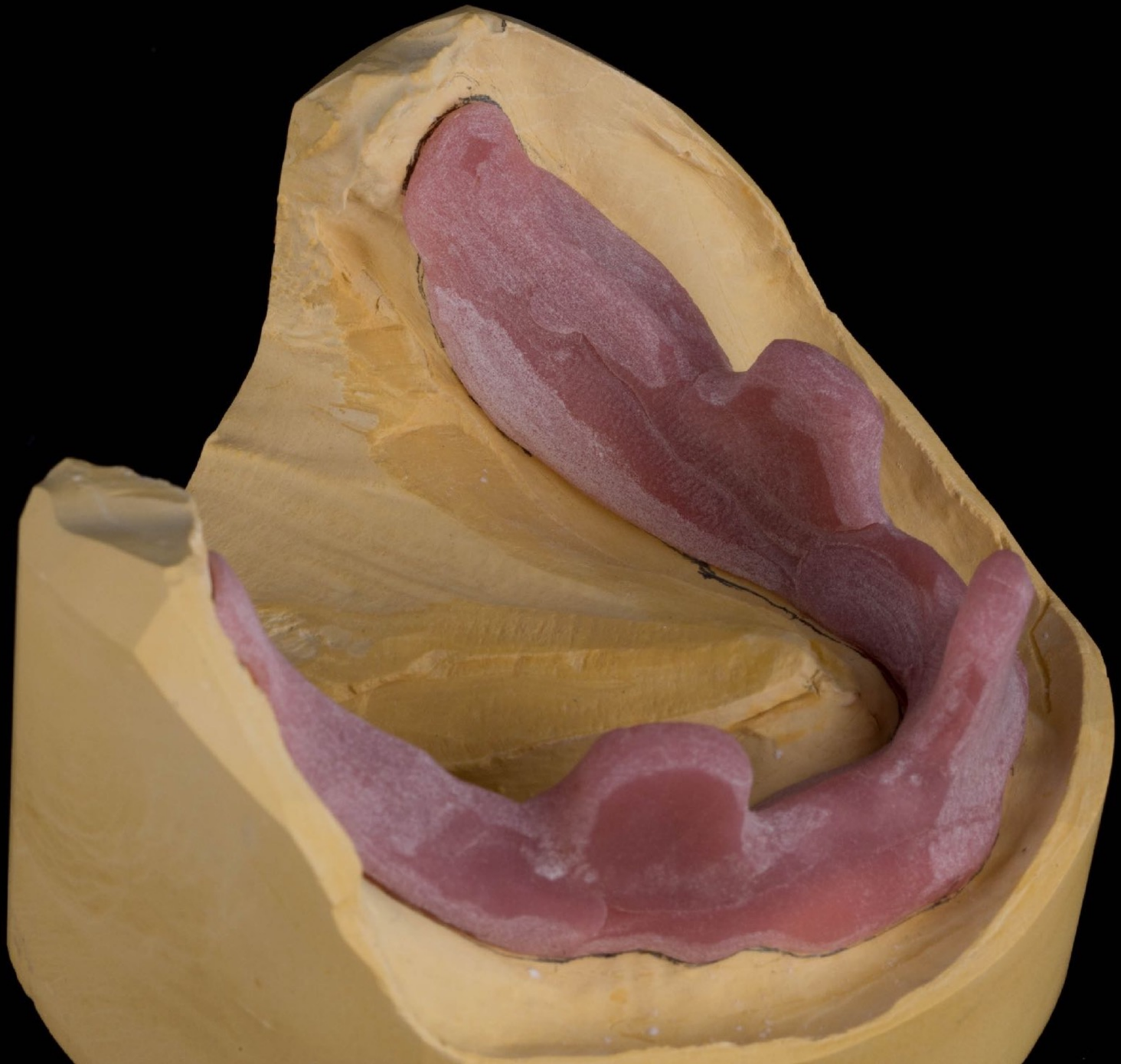
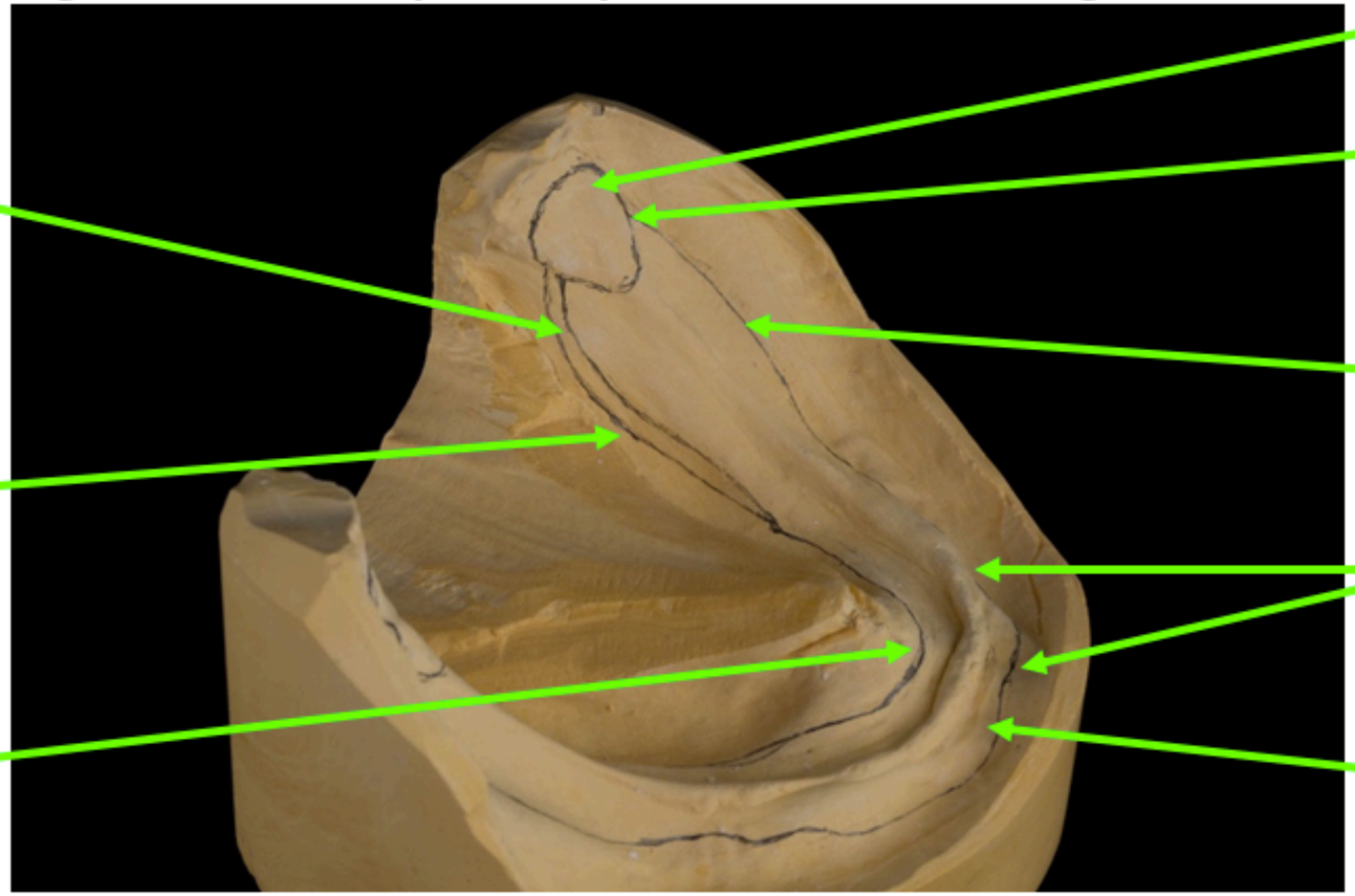


Figure 9 The lower special tray is made to the following extensions



1.Draw round the left retromolar pad fully

2.Avoid the Someya sinew

3. Buccal shelf 2 mm short of the buccal edge of the mandible

4. Avoid midline and buccal frena

5. Labial sulcus 2 mm short of the full depth

6. Draw a line from the middle of the retromolar pad vertically down to the edge of the mylohyoid line and forward anteriorly to the divergence point

7. Draw a second line 2-3mm behind line 6 and join up at the divergence point

8.Continue the line anteriorly on the lingual border of the mandible

Complete denture construction manual

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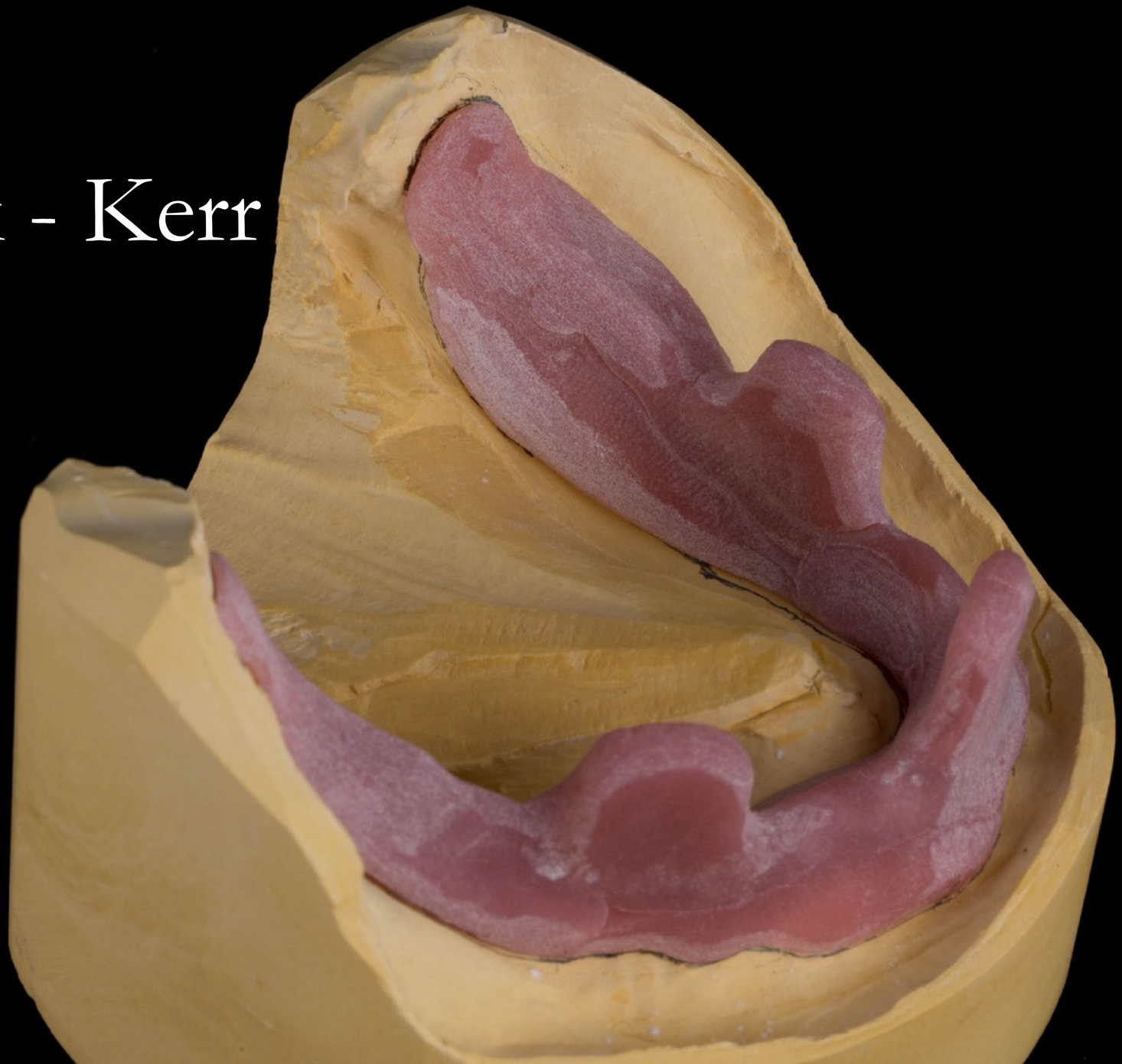
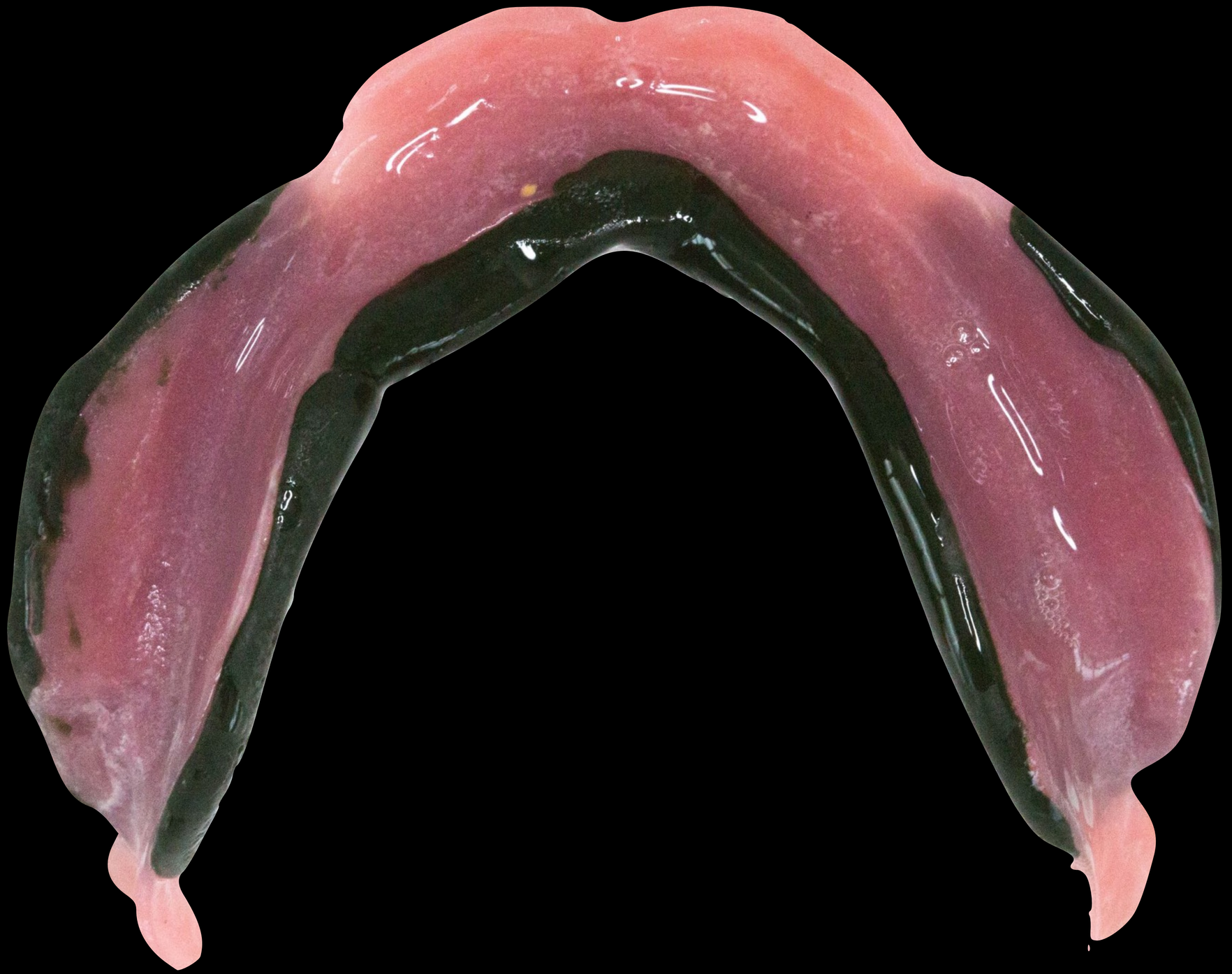
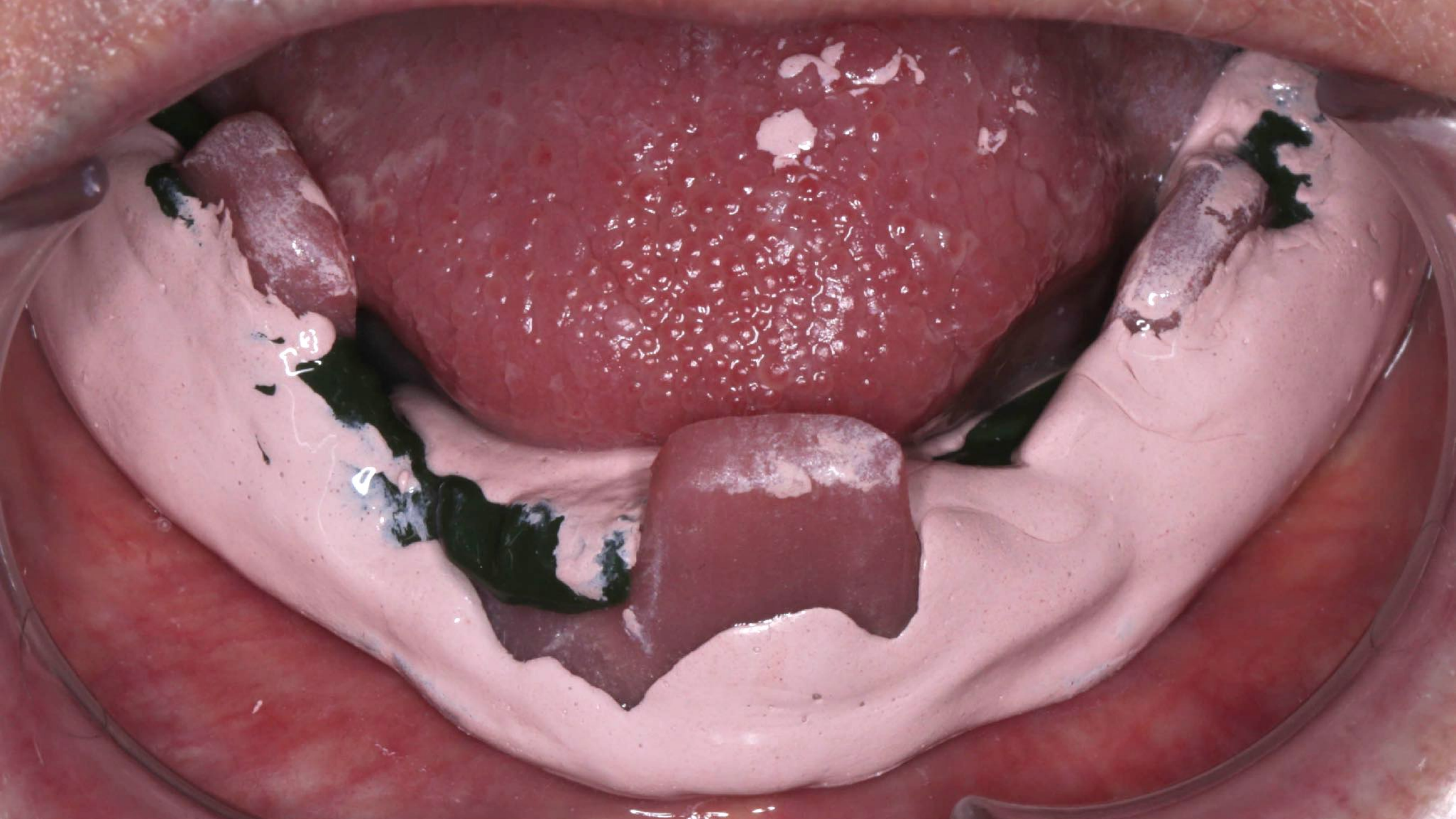
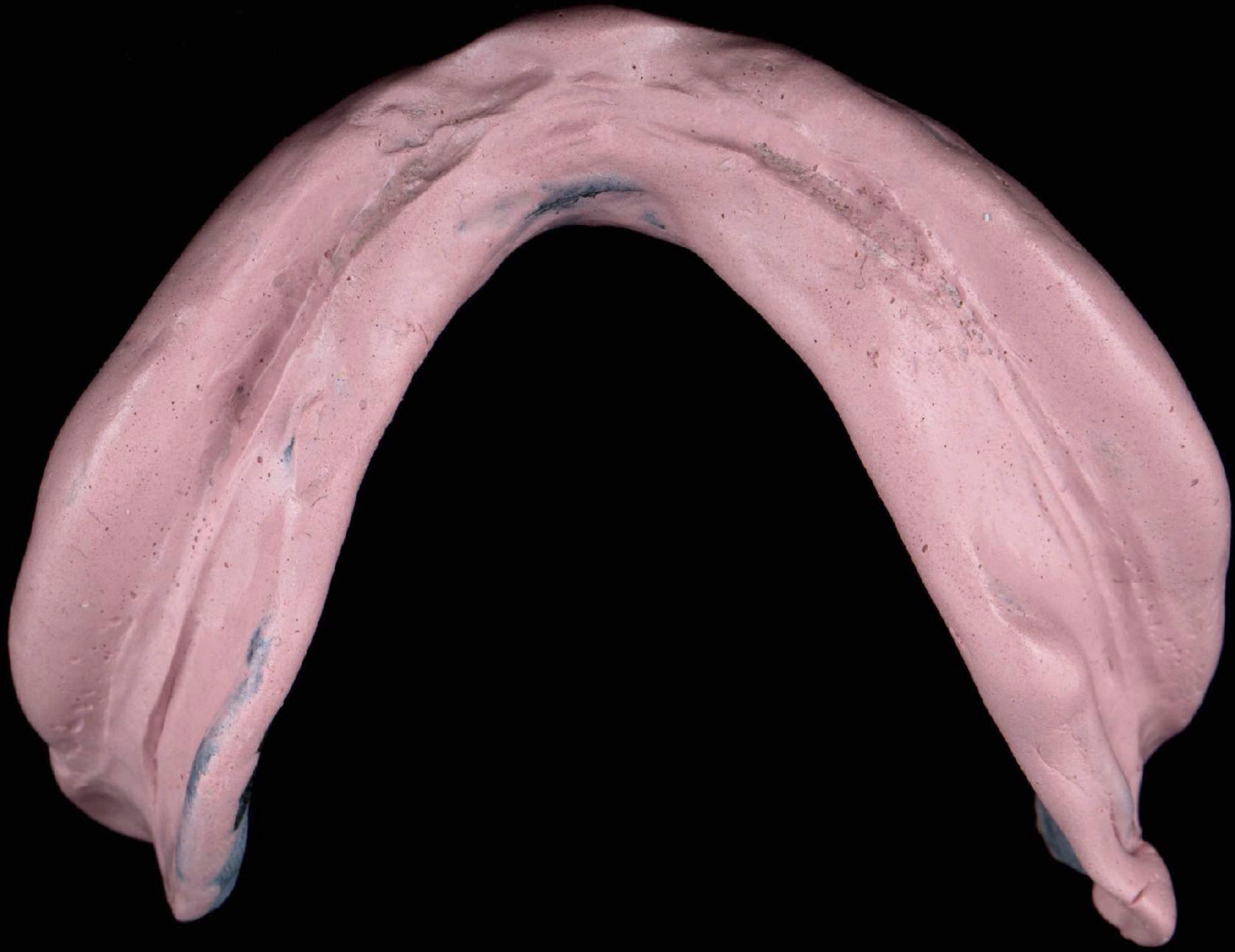
Greenstick - Kerr

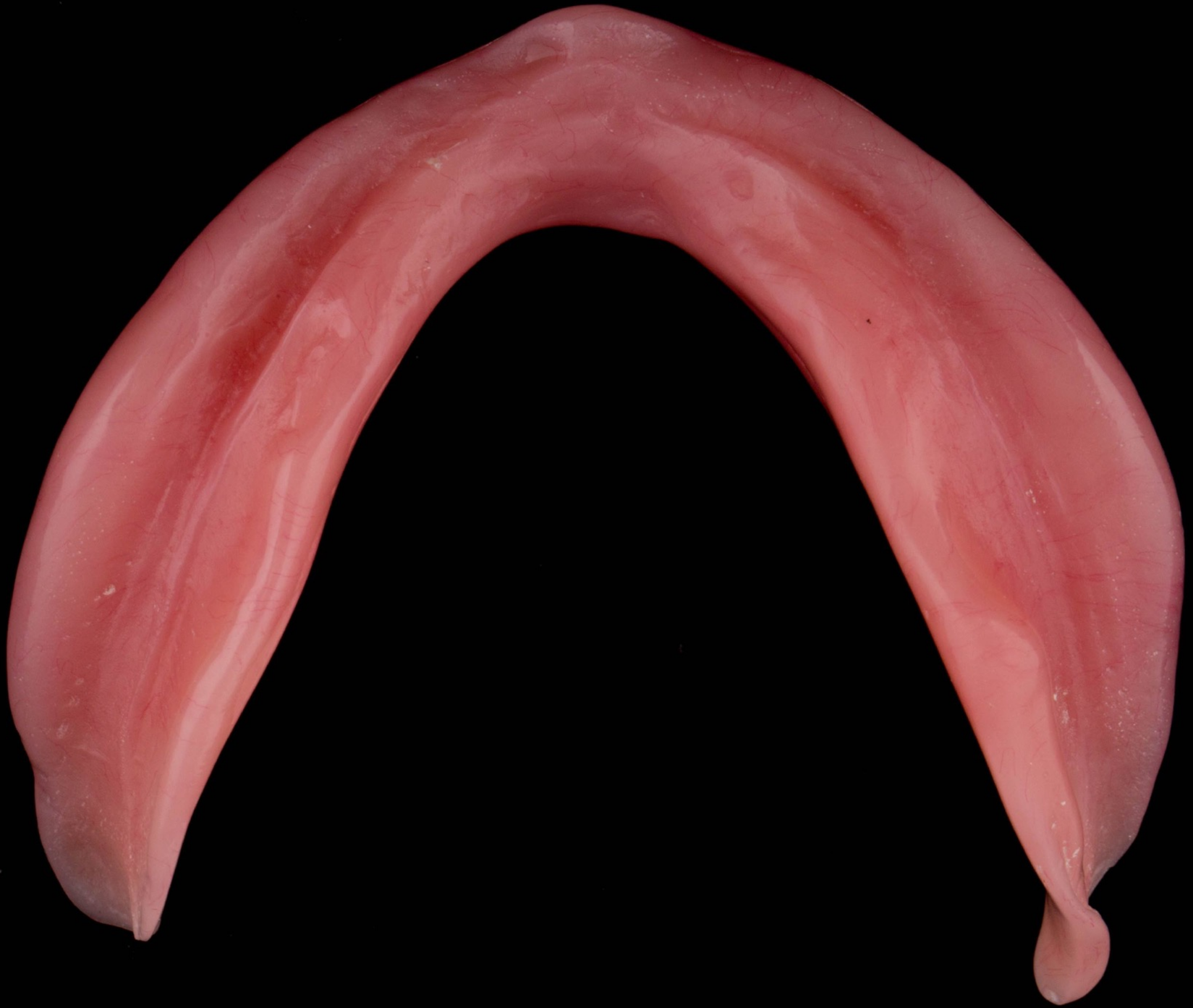




Zinc oxide eugenol

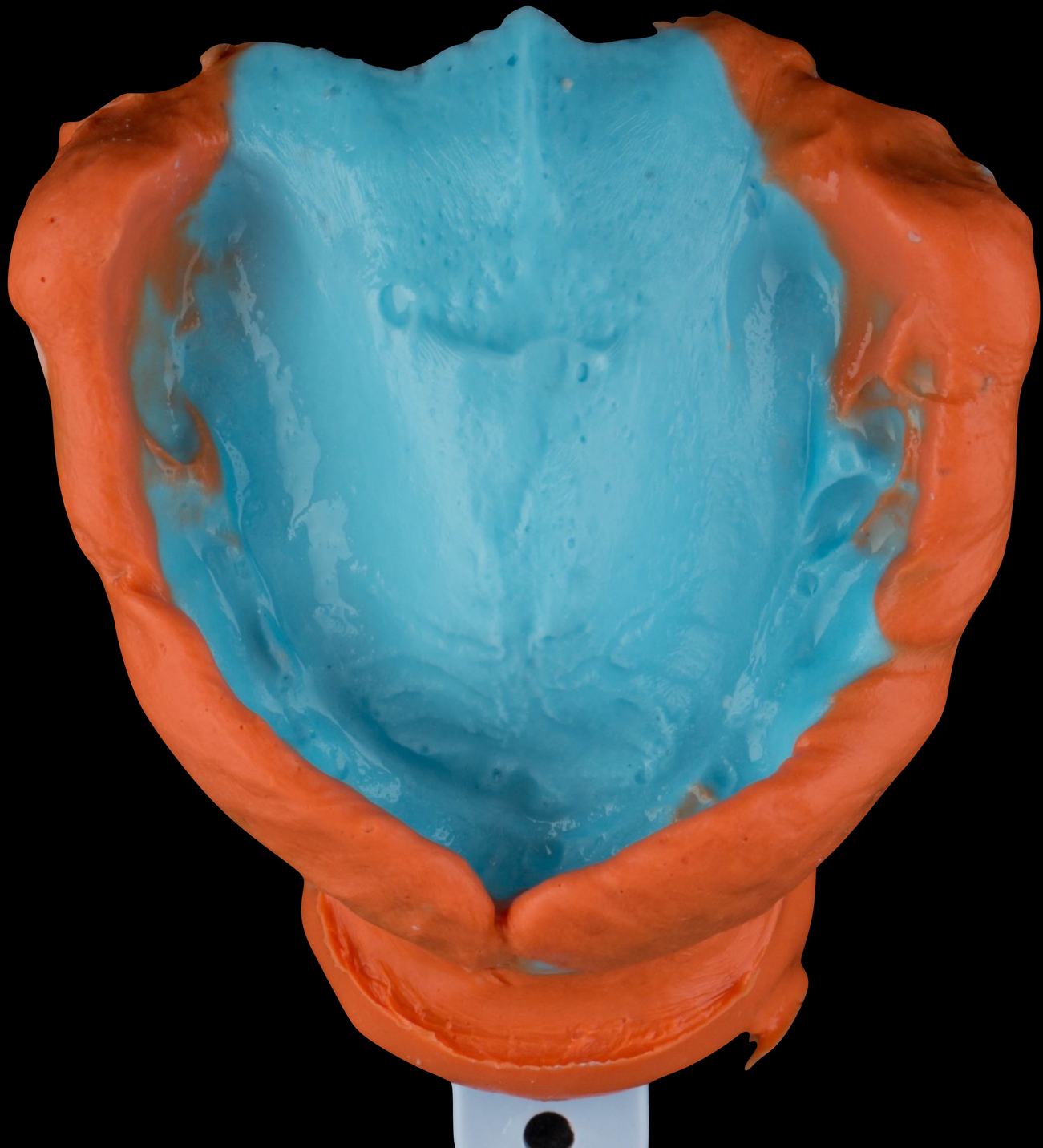


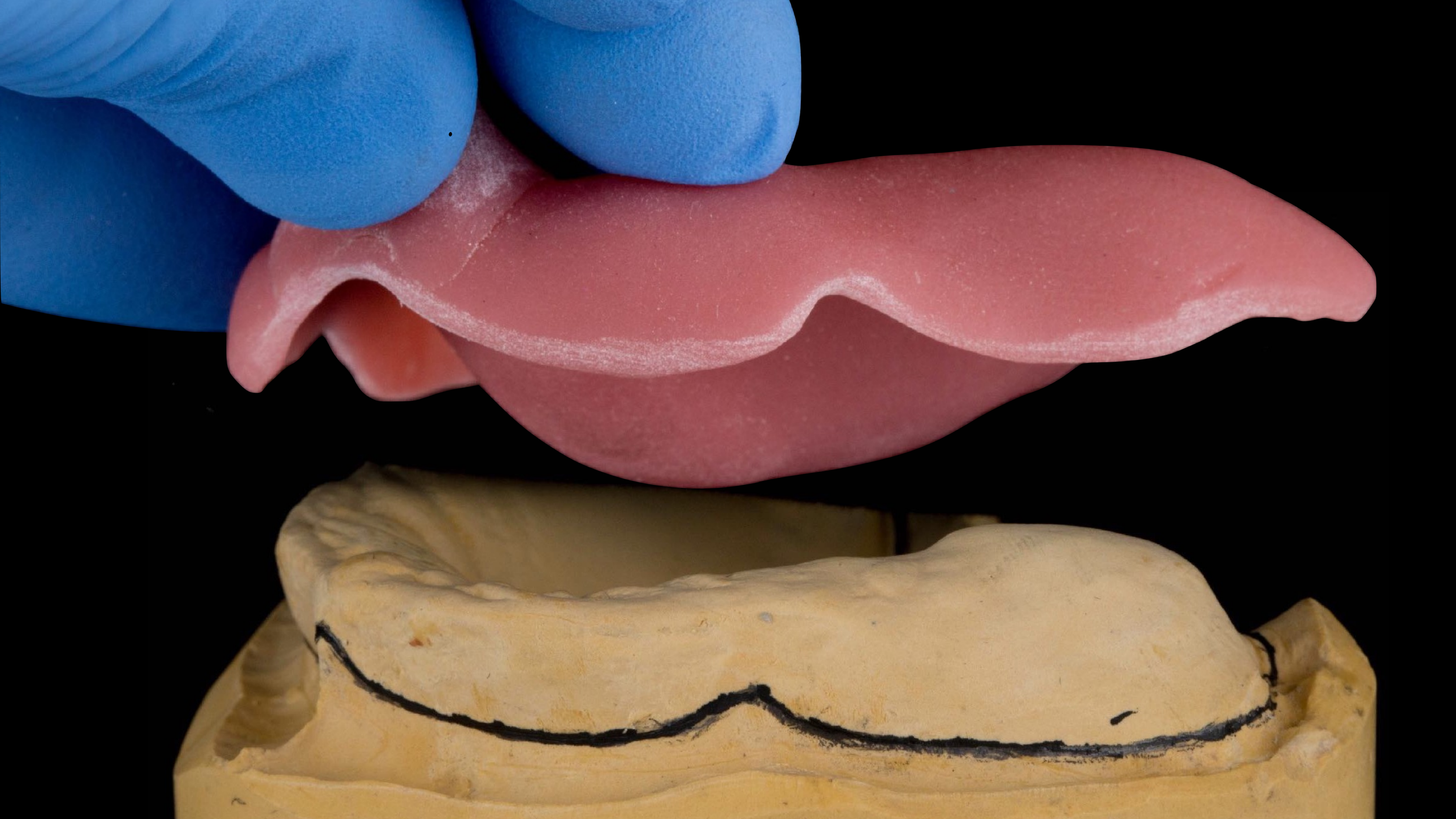


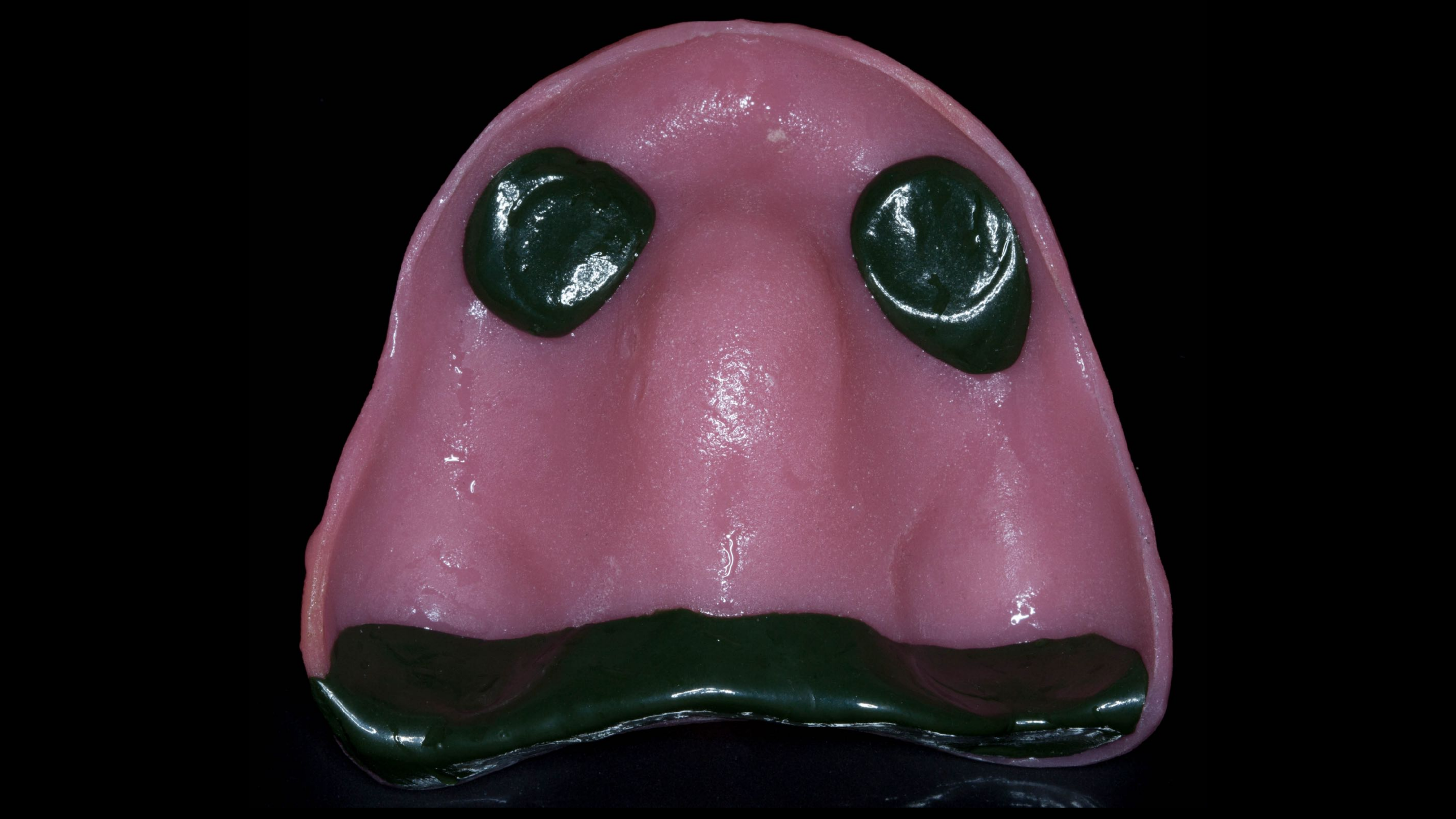


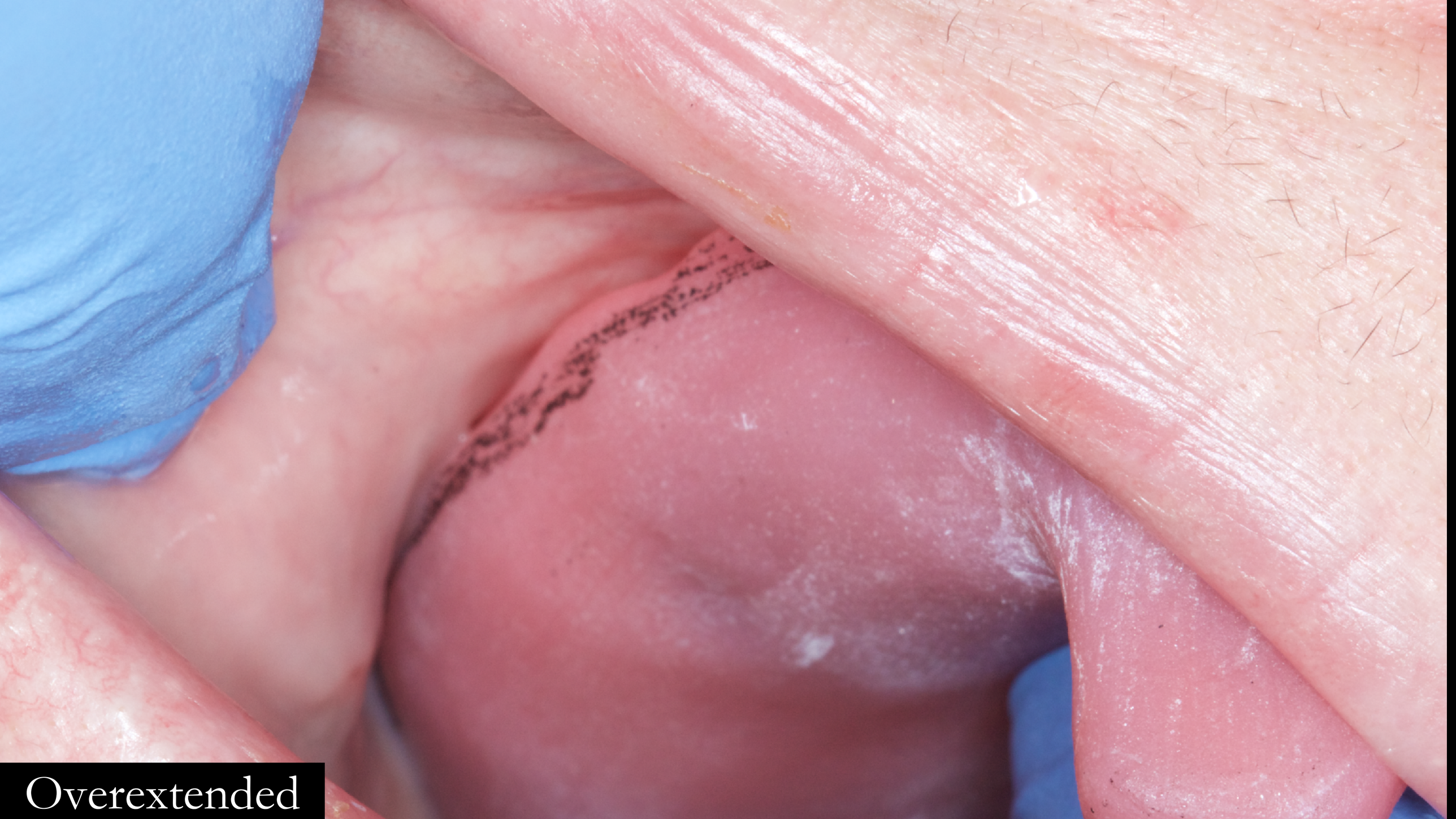
Prof Fraser McCord

"Finlay - you are fxxxxxx shite at prosthodontics"





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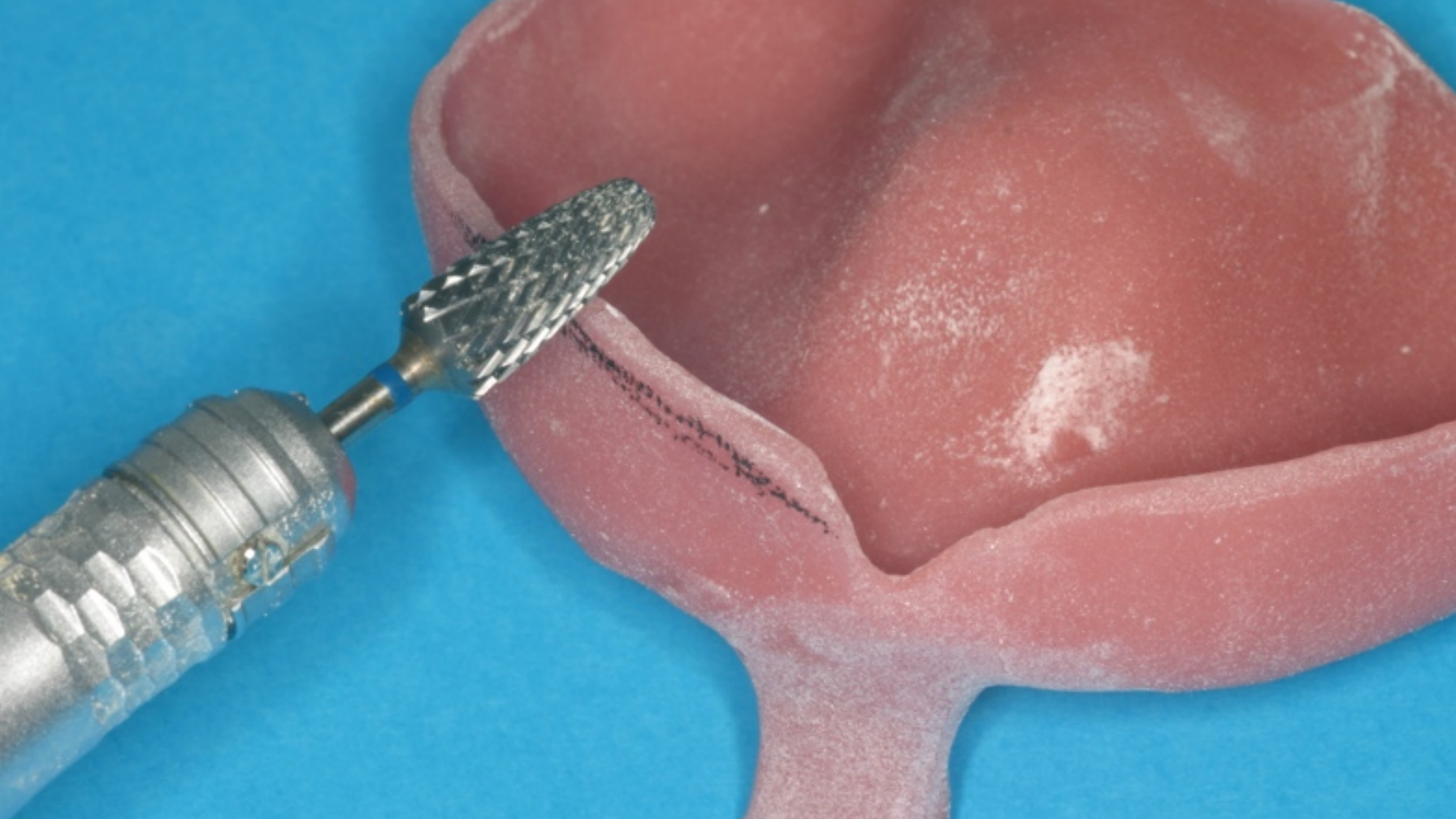
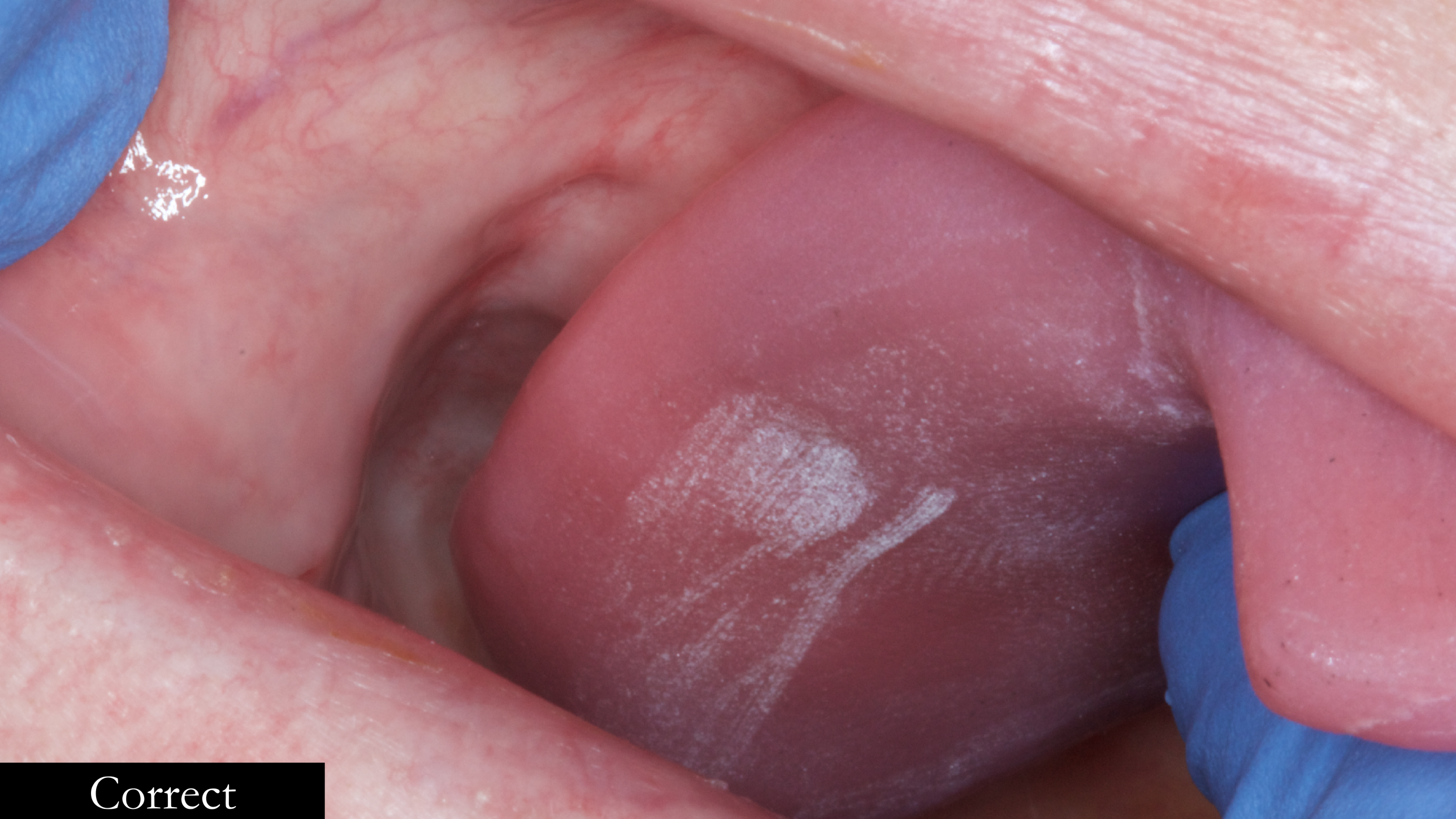
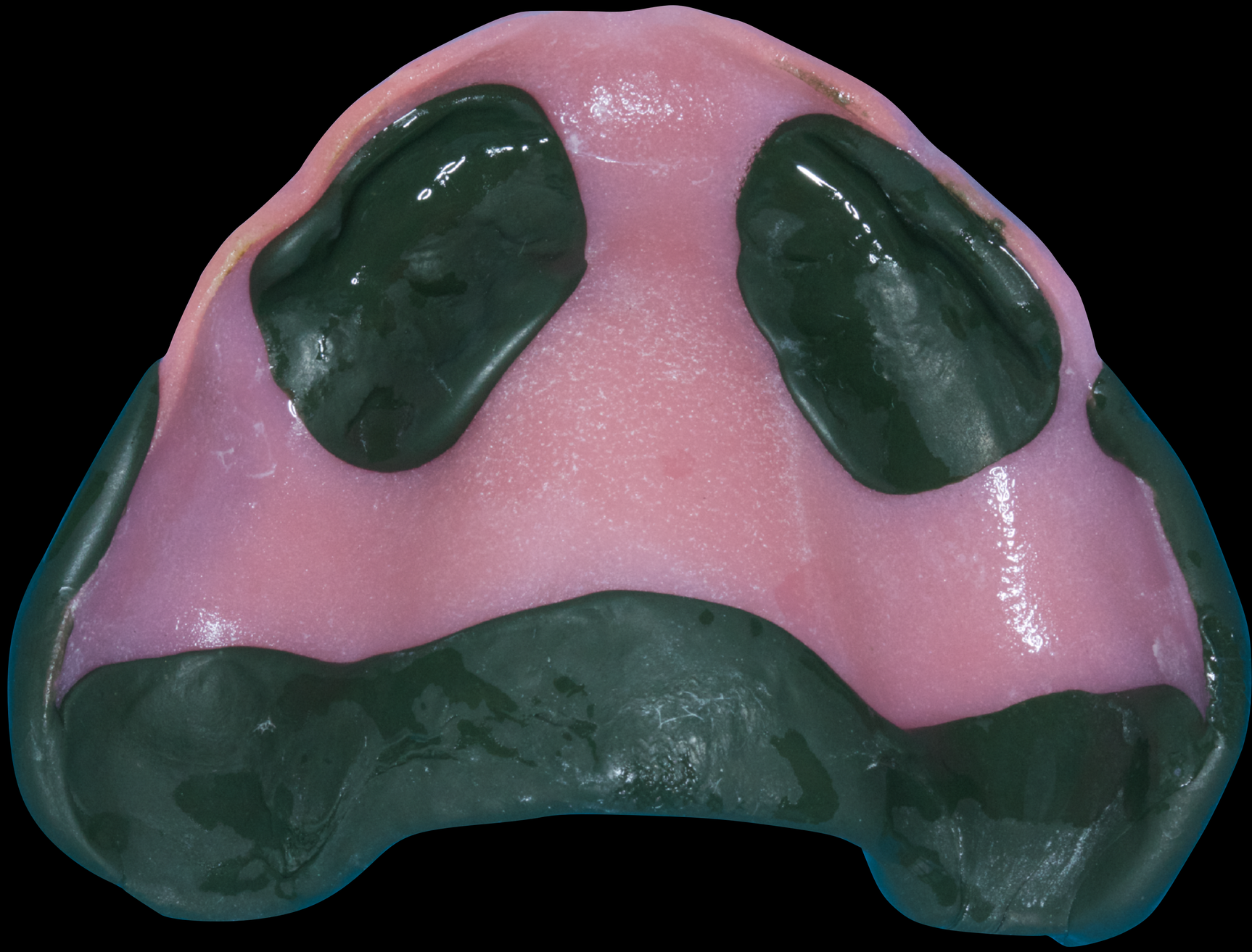
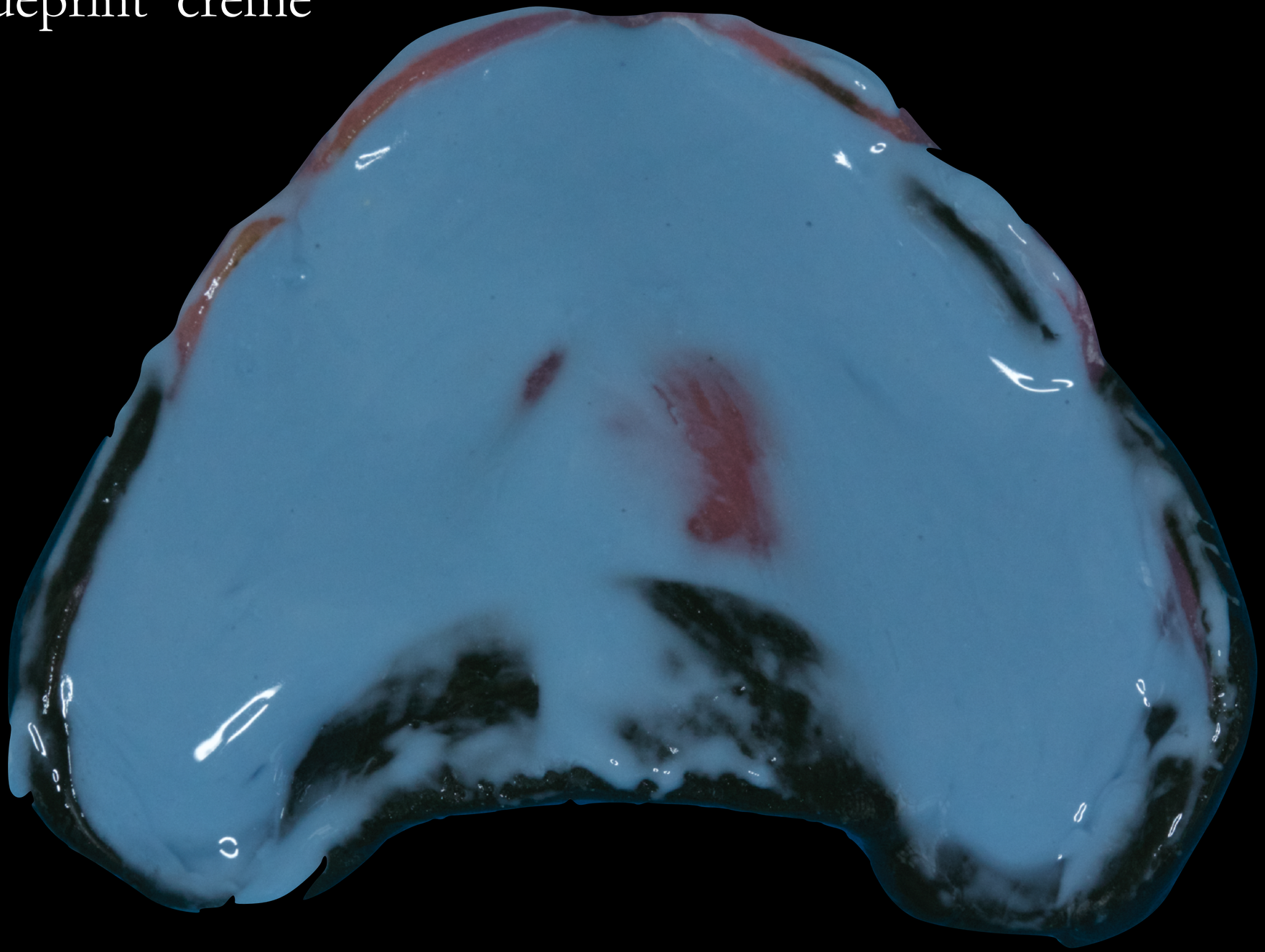
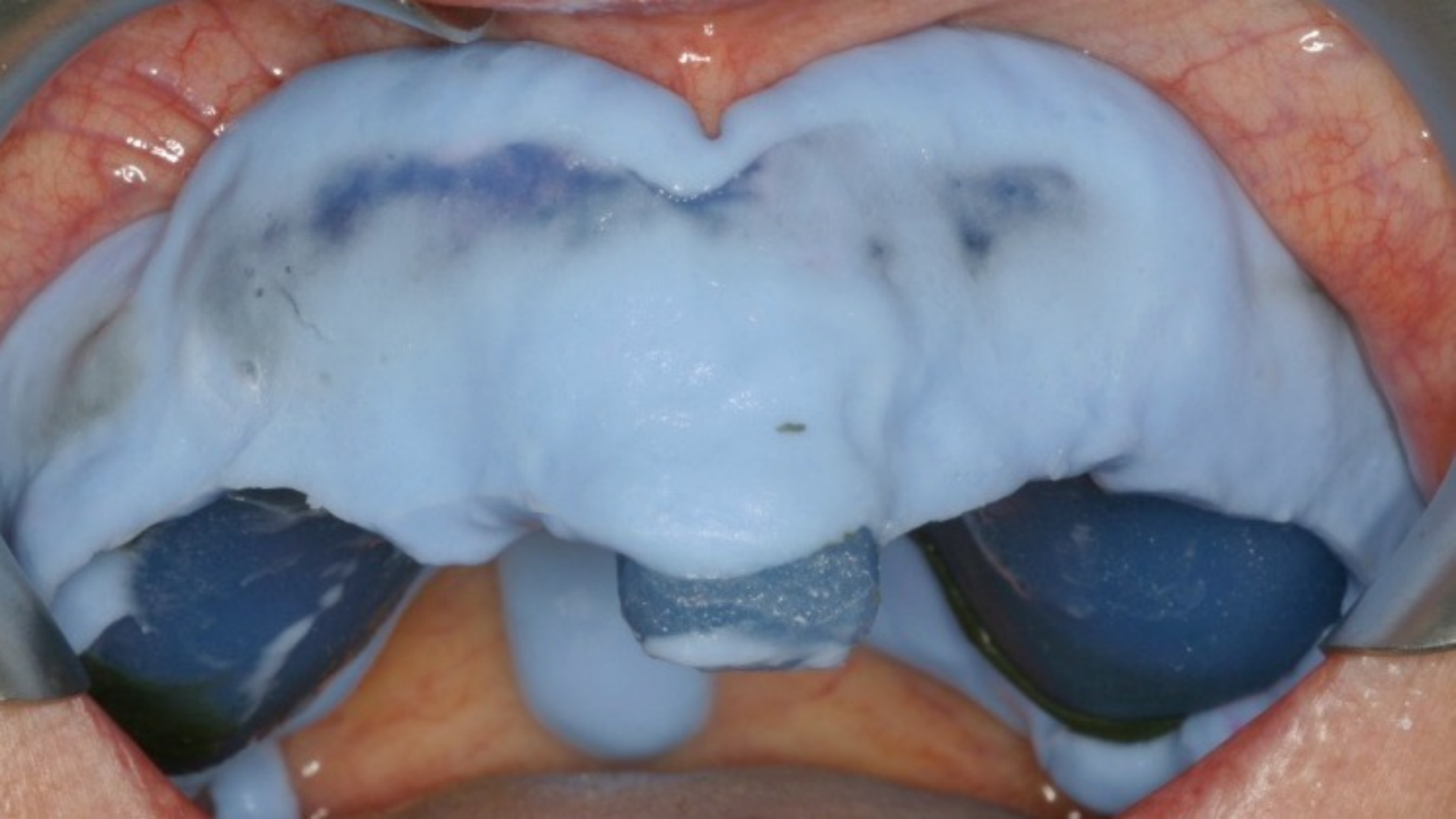


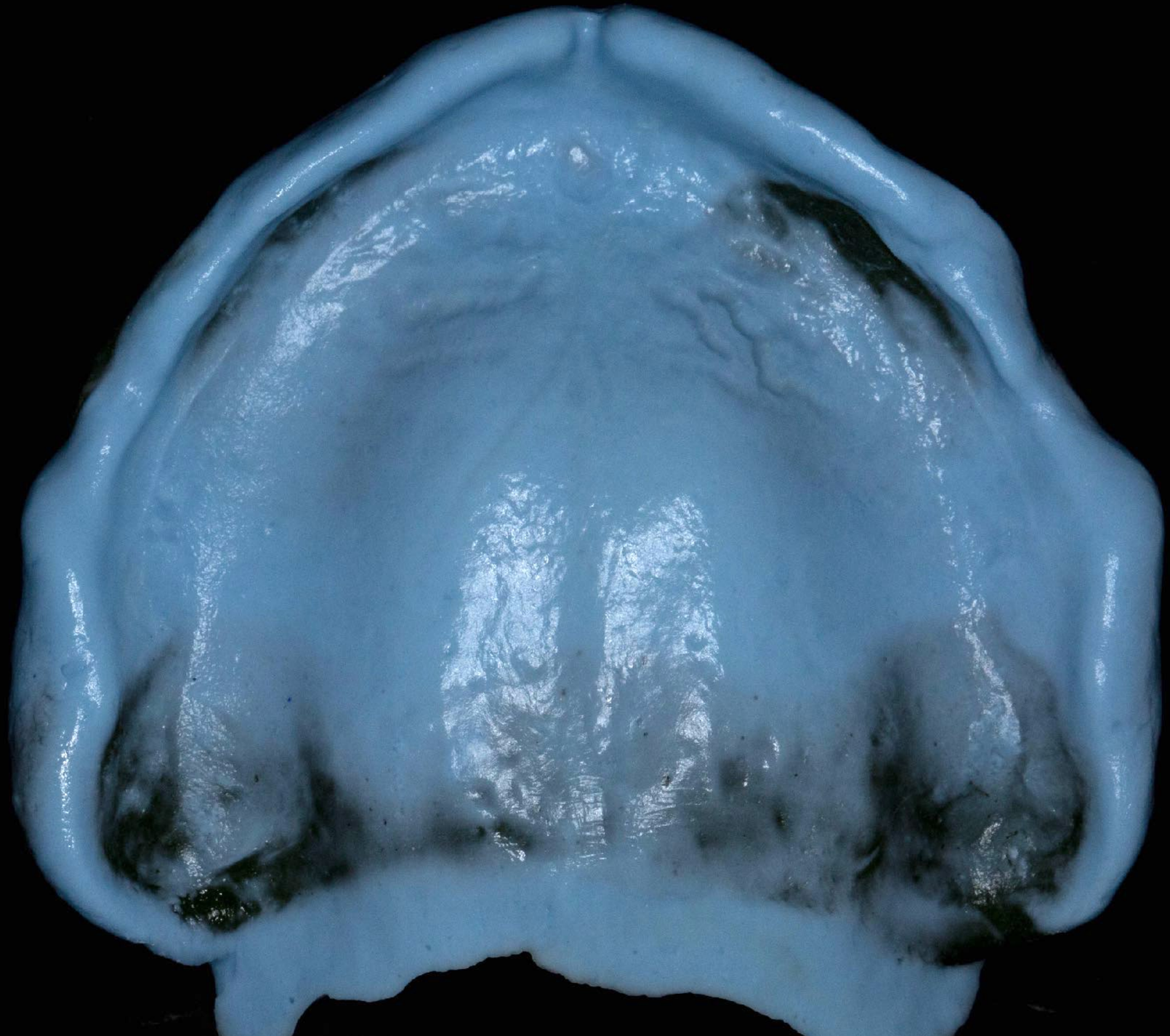

Correct

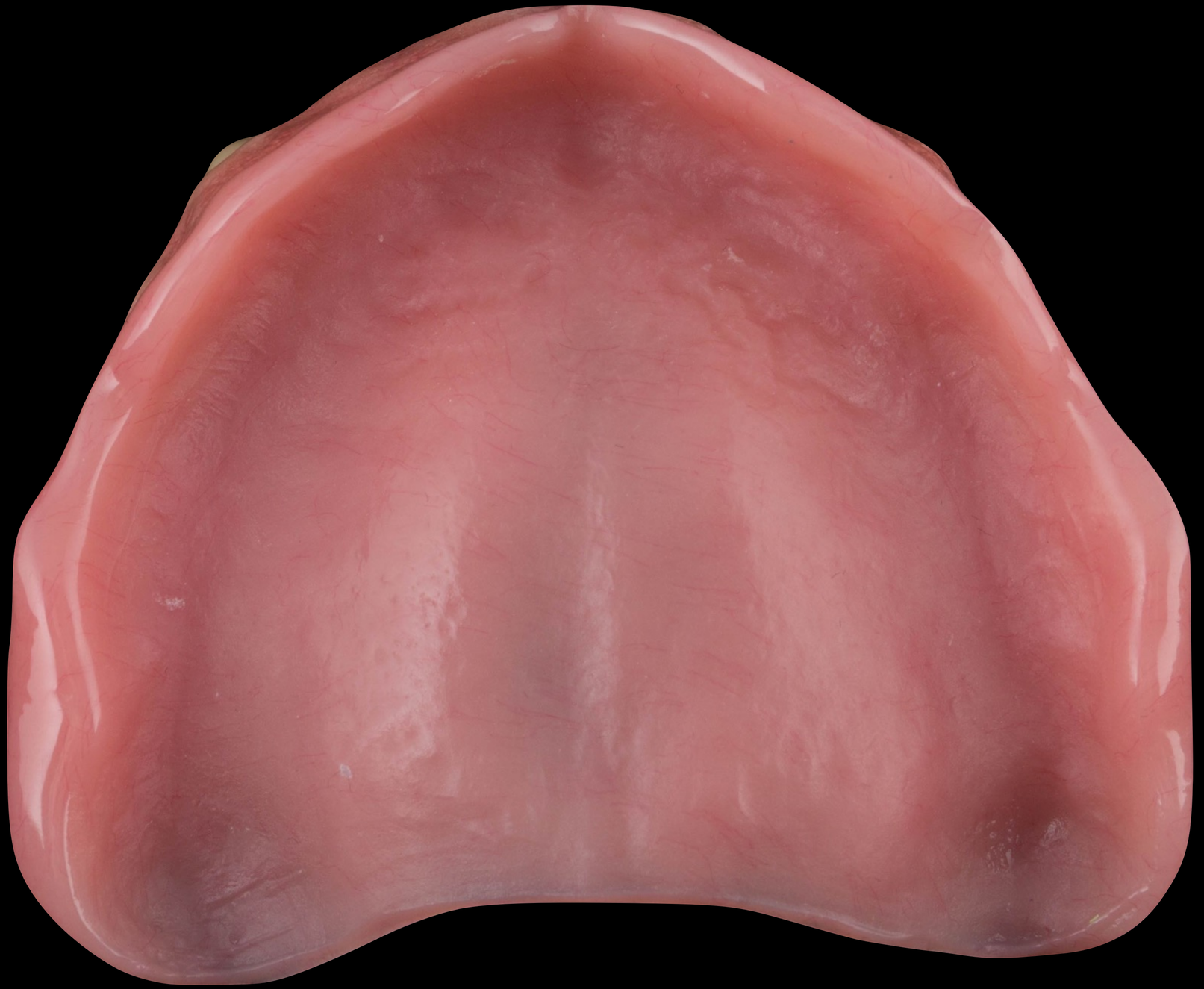


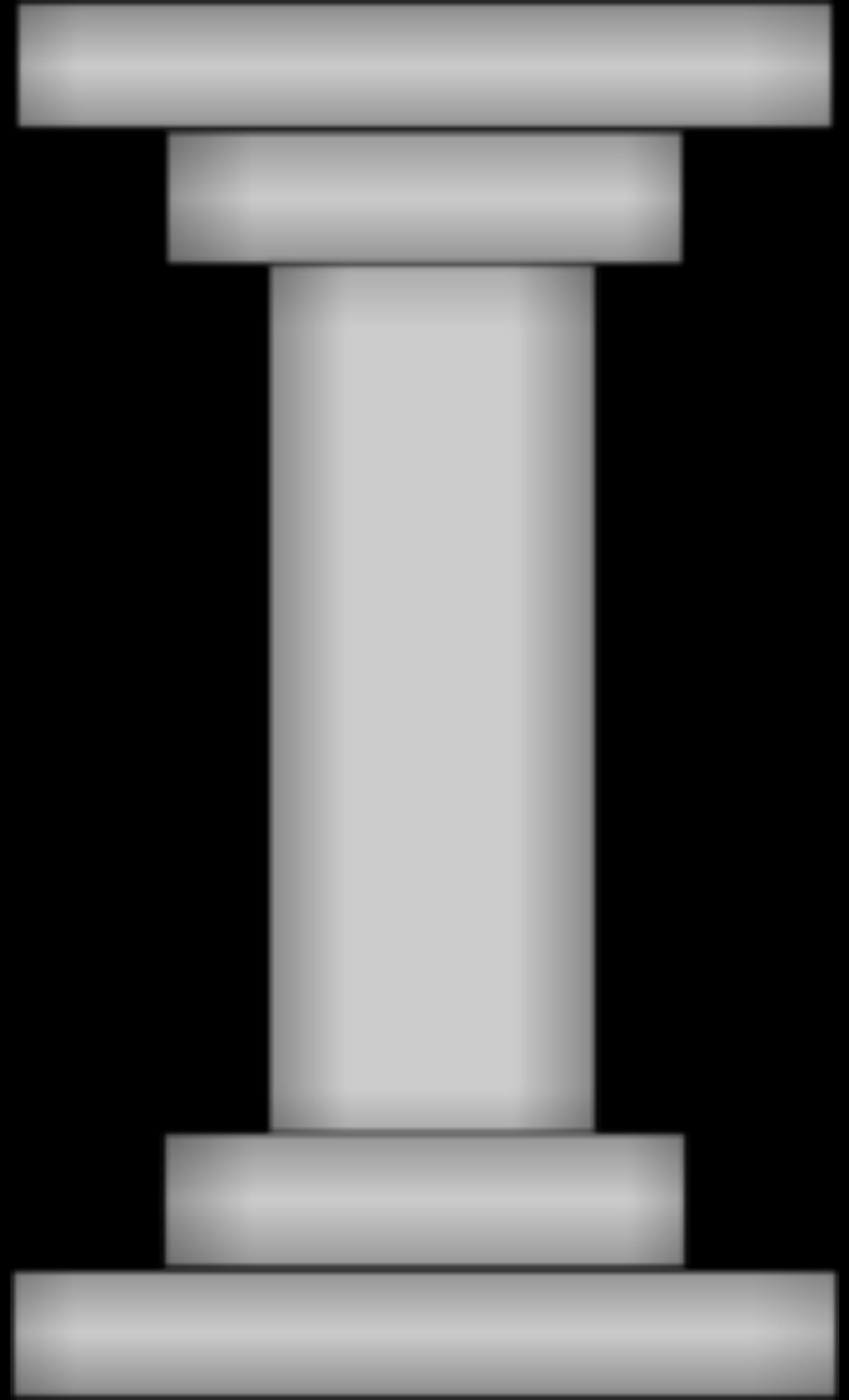
Dentsply Blueprint creme



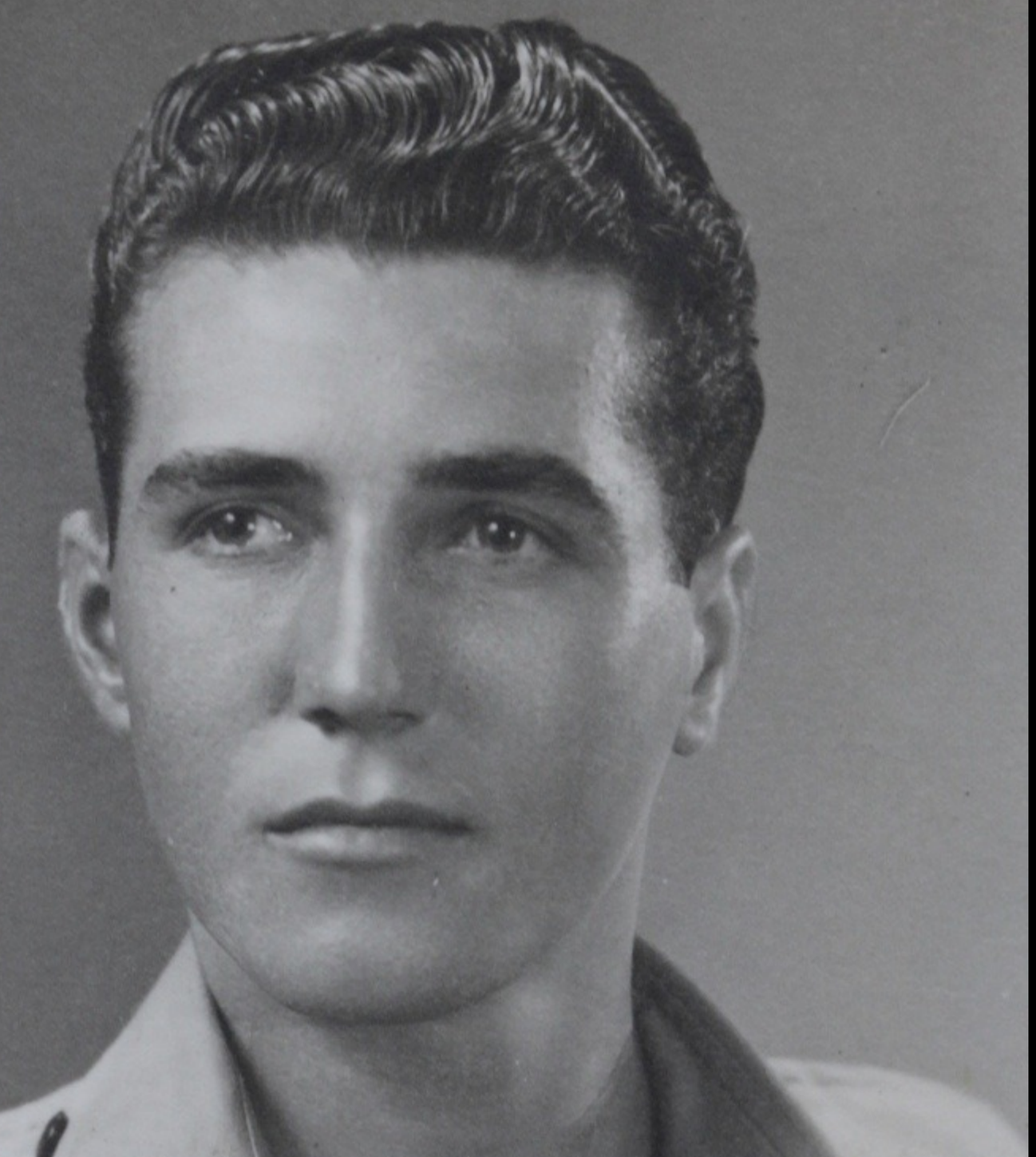






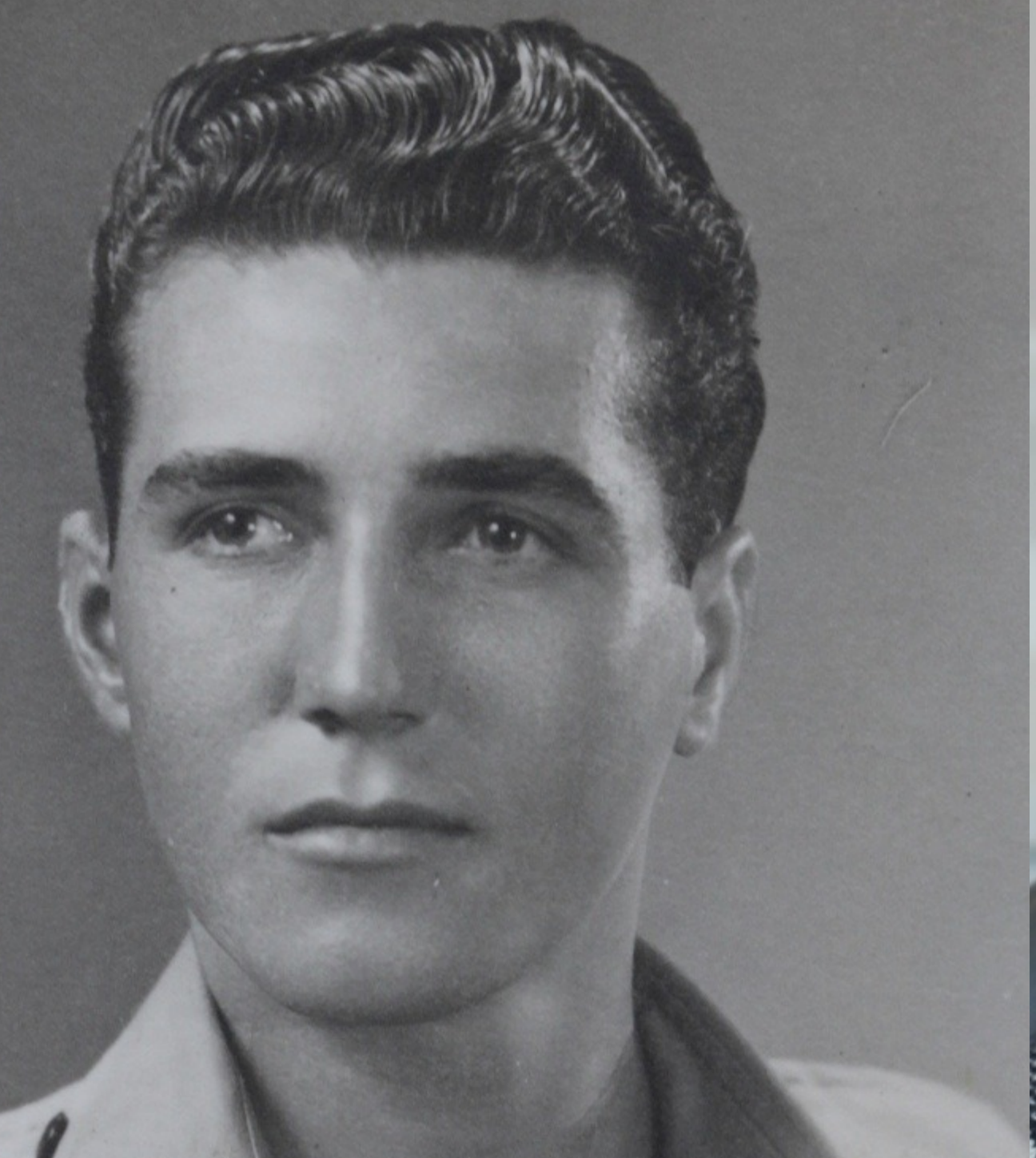


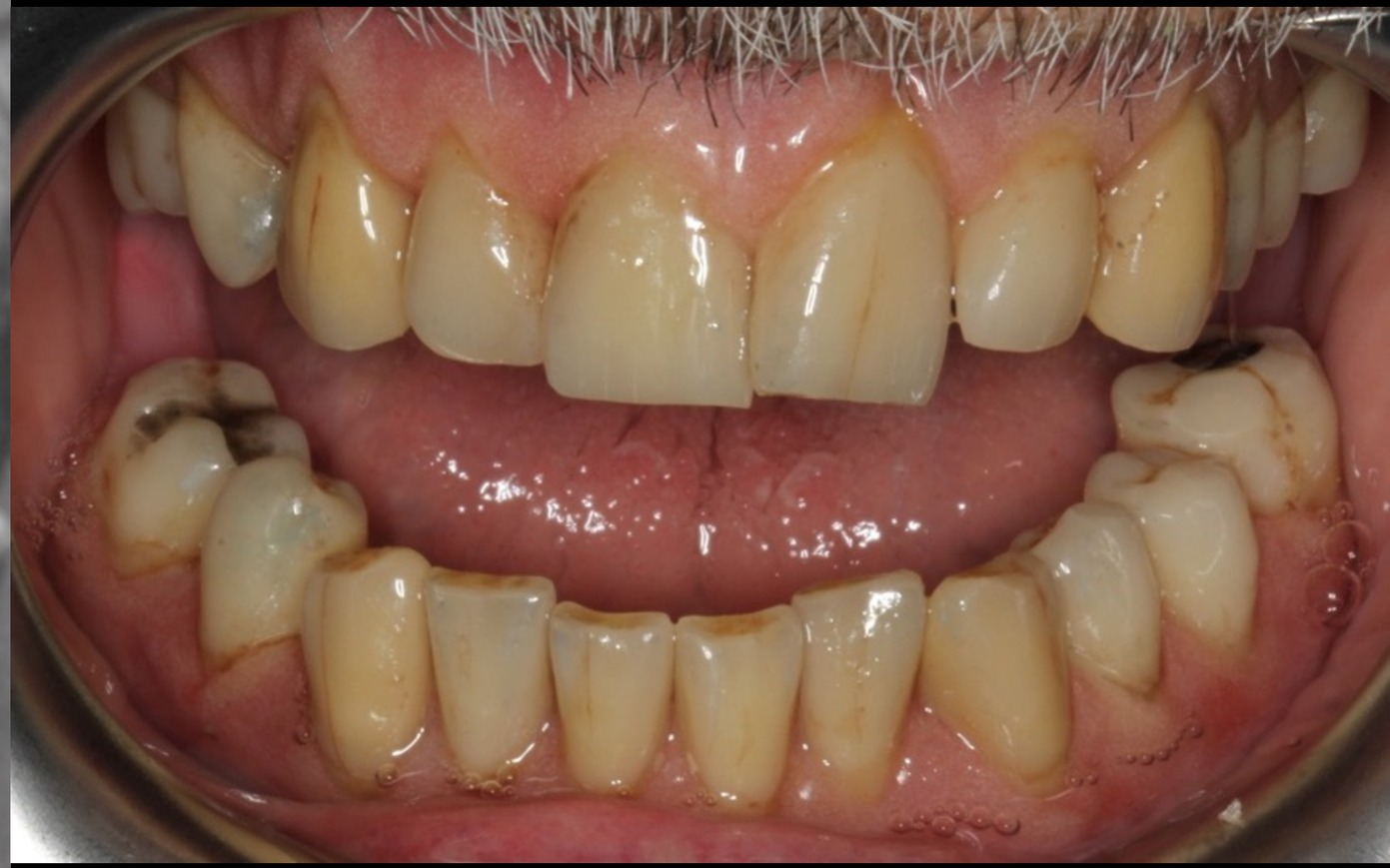
Teeth positioning

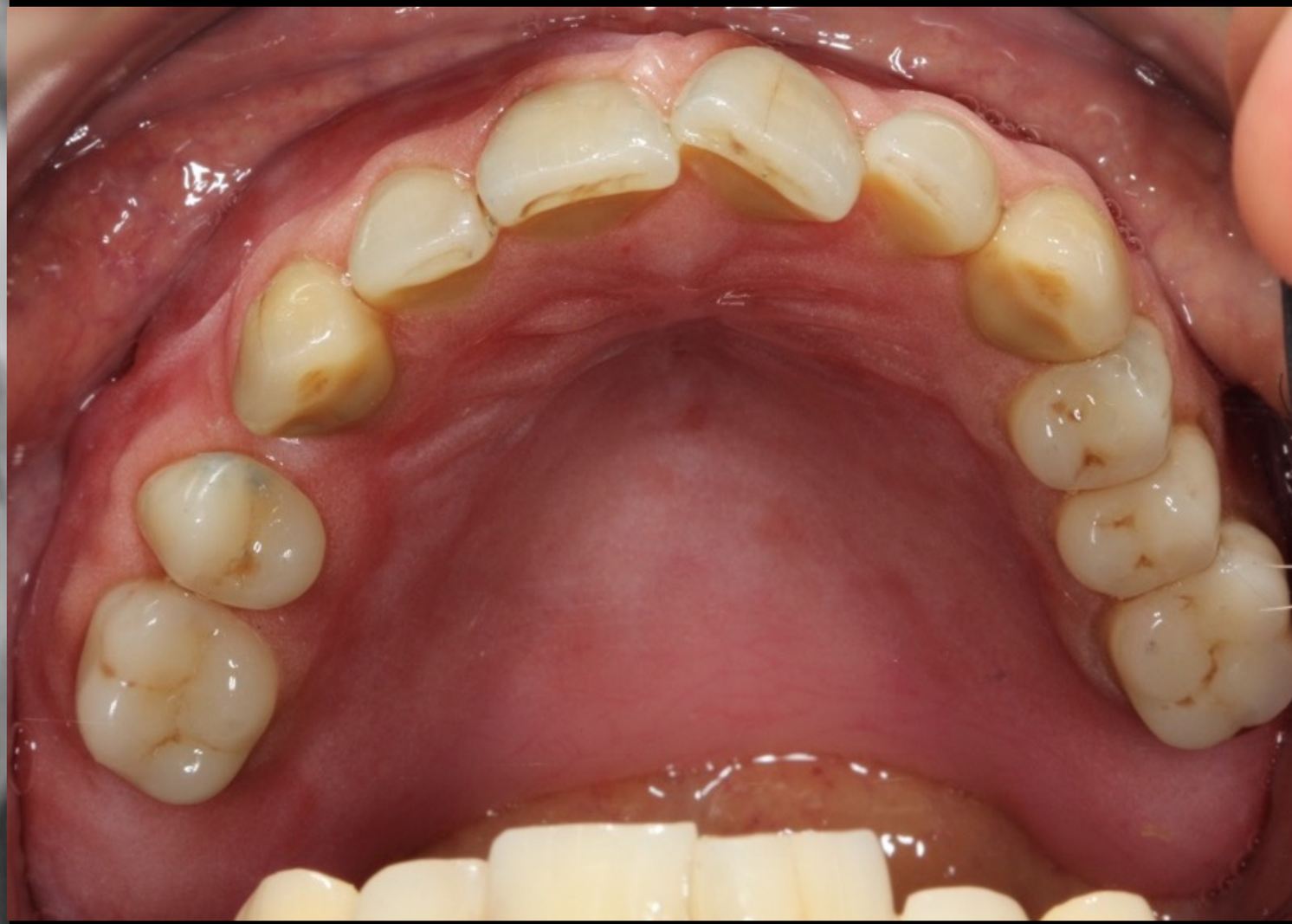


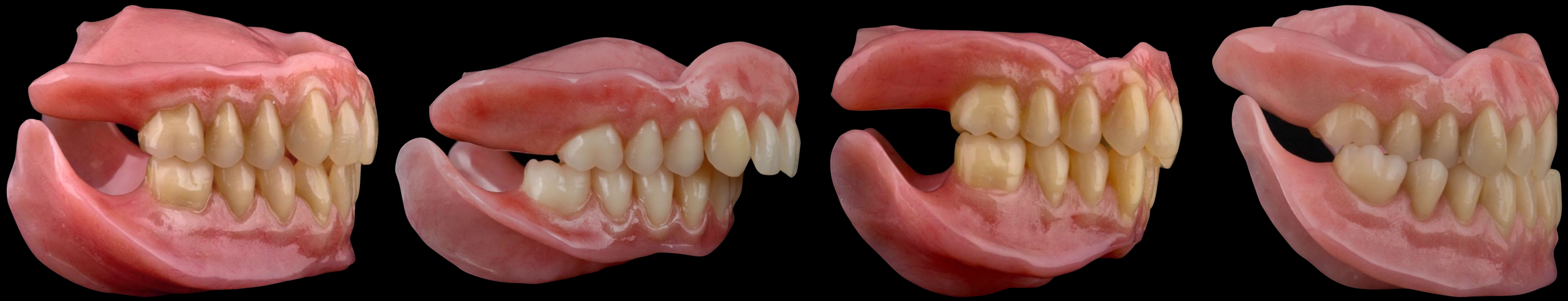
Handsome Ernest

Photographs - as many as possible







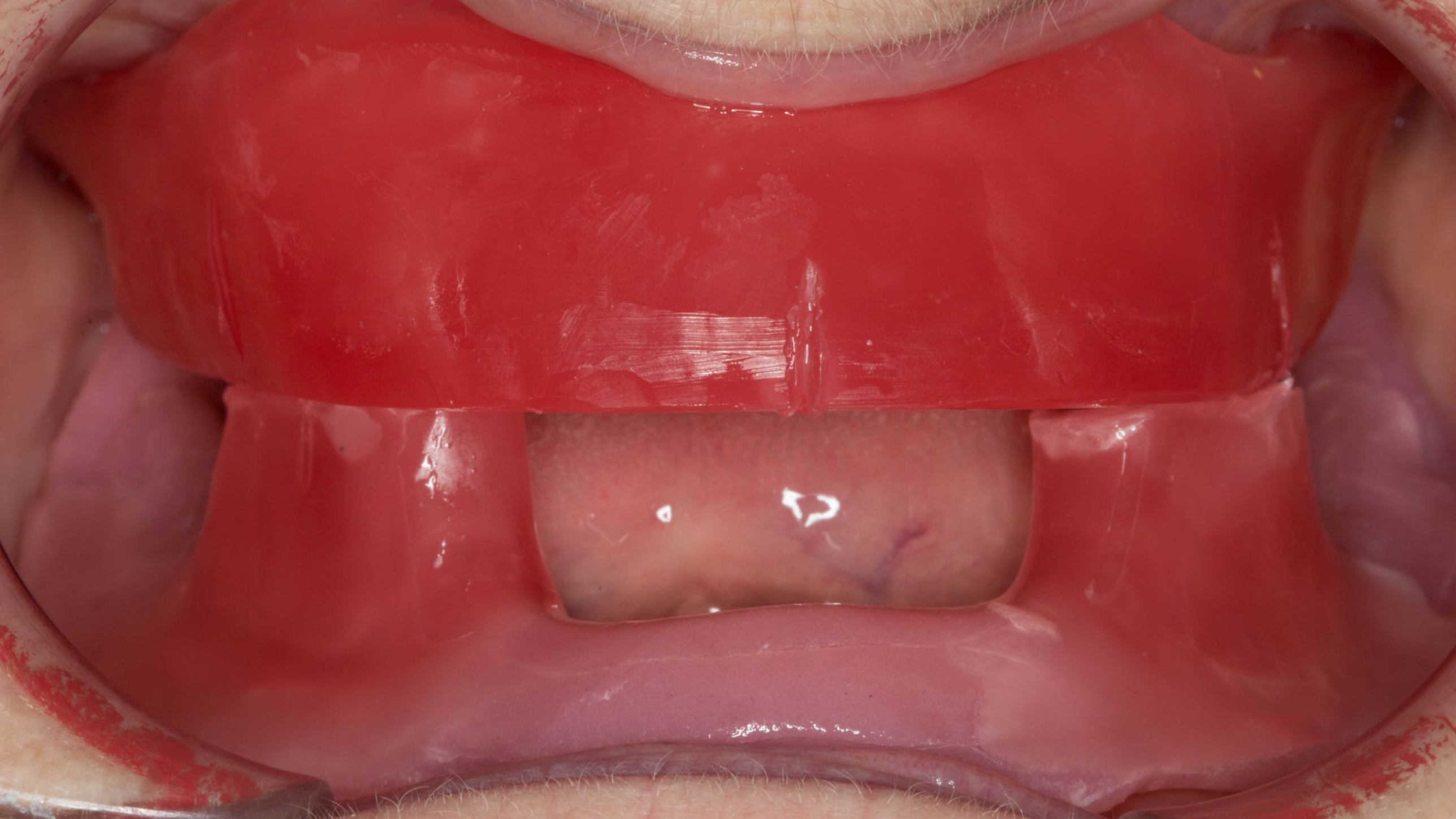


I

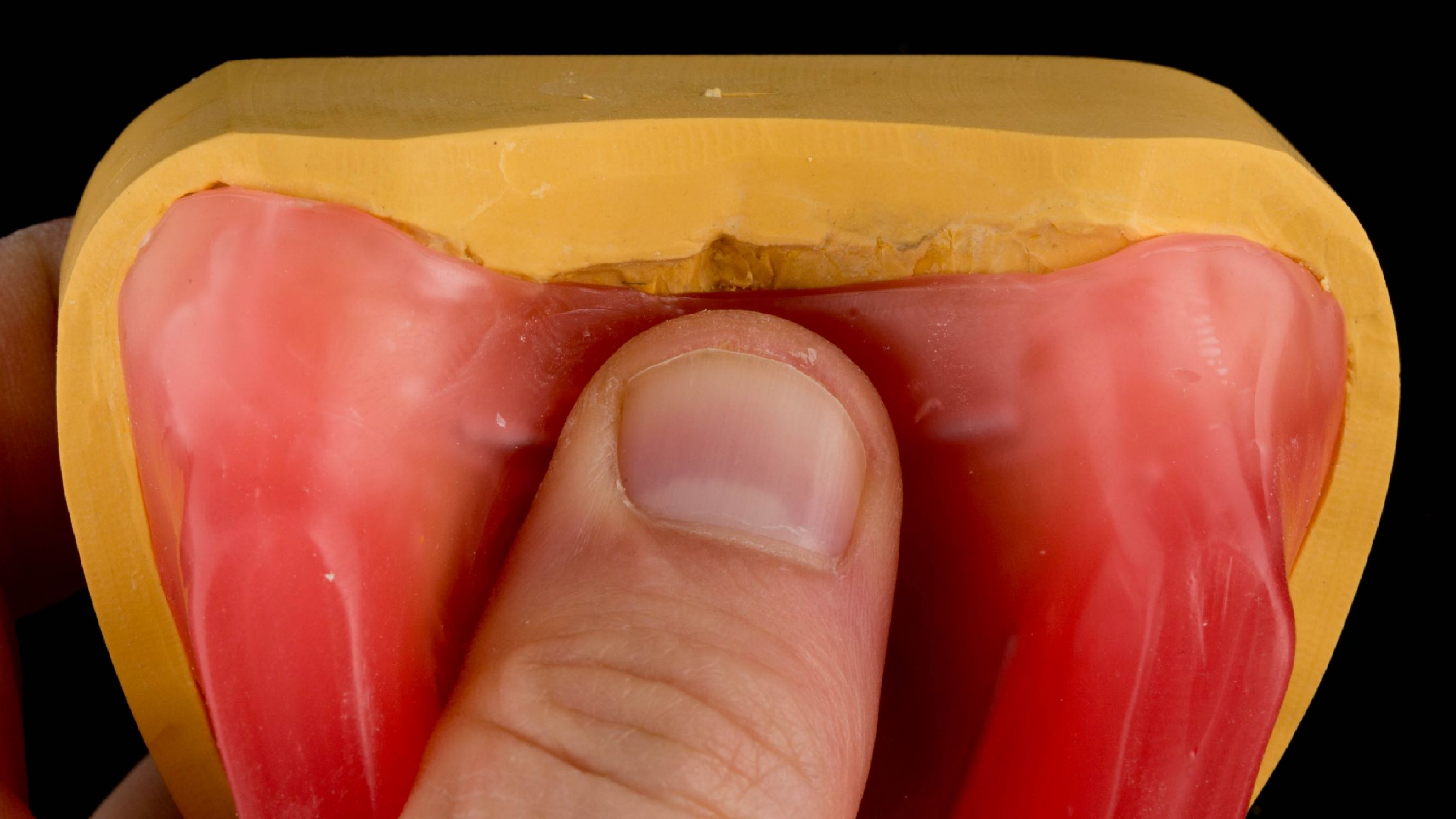
II div 1

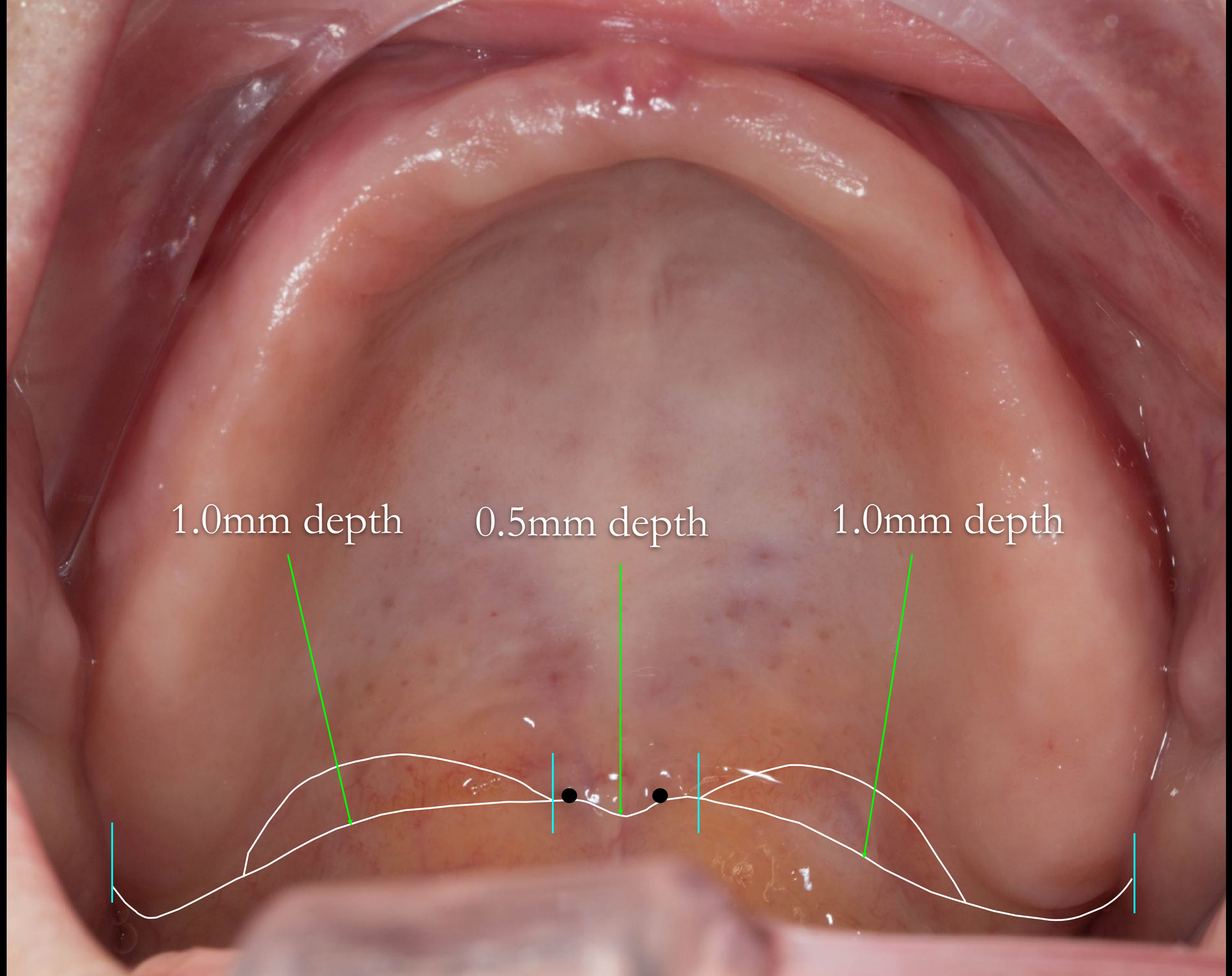
II div 2

III



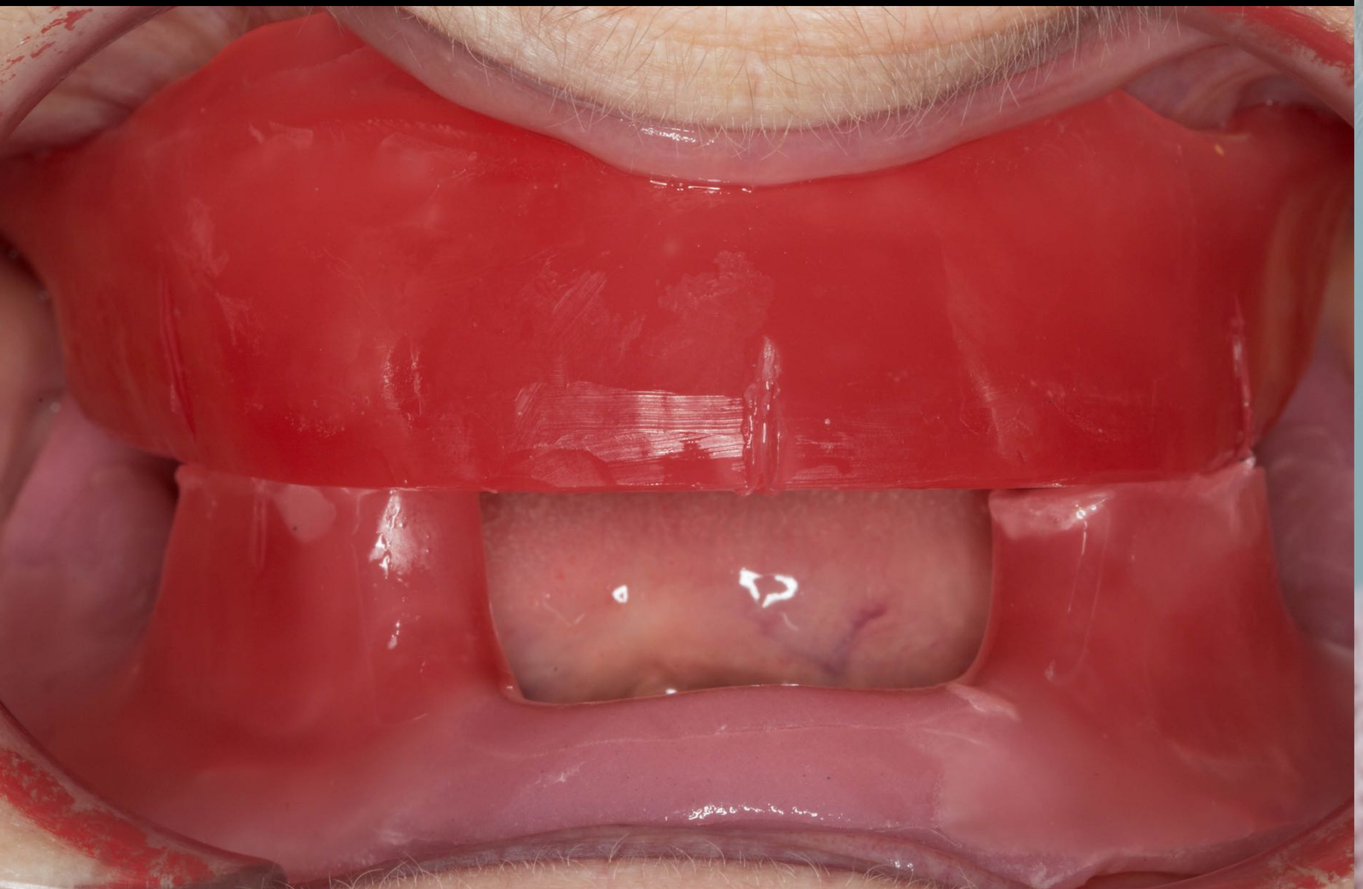
Wax rim must stay put




1.0mm depth
0.5mm depth
1.0mm depth

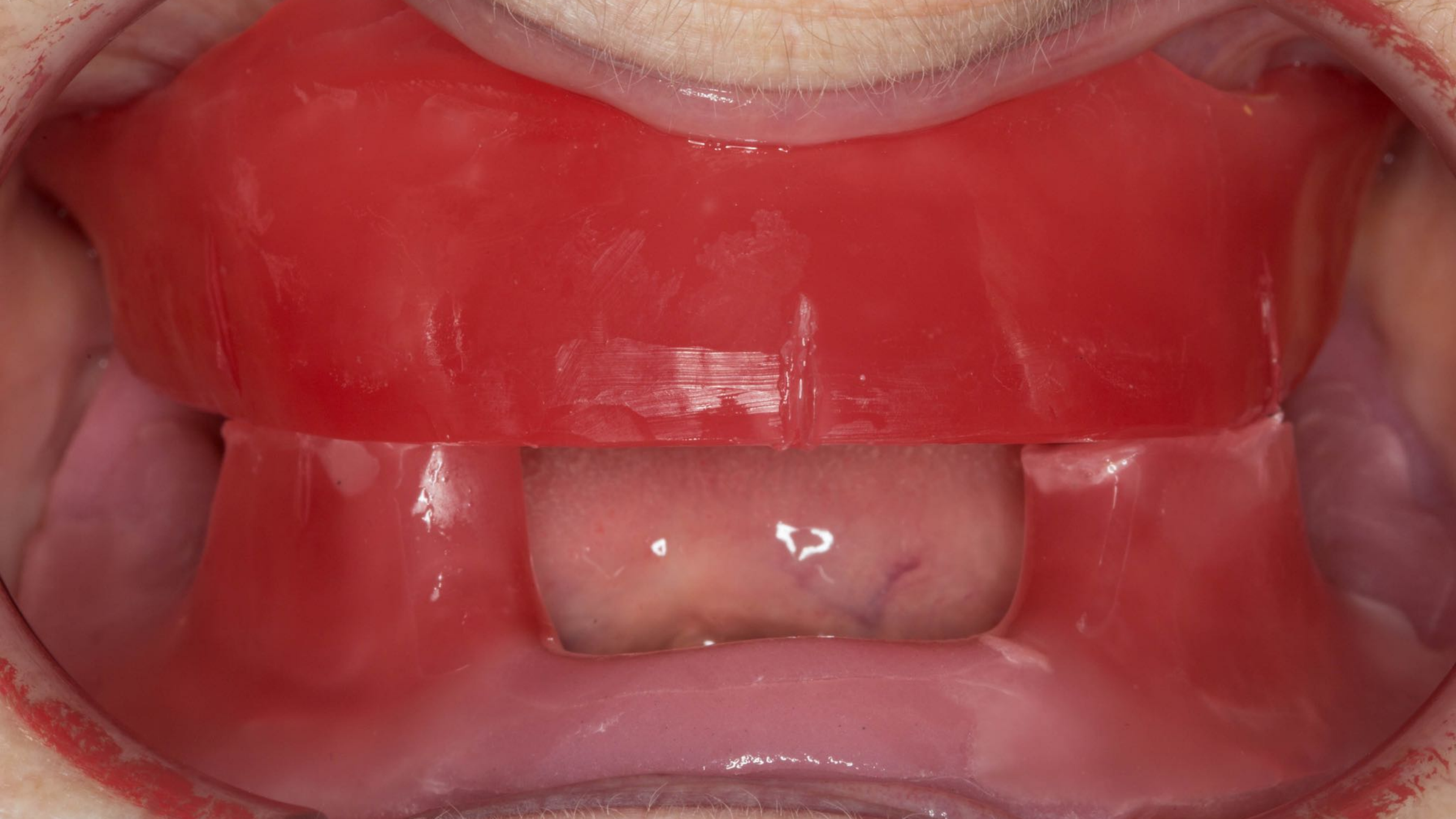

1 Lip support
2 Incisal plane
3 Occlusal plane
4 Buccal corridors
5 Centre line
Clinical Bag

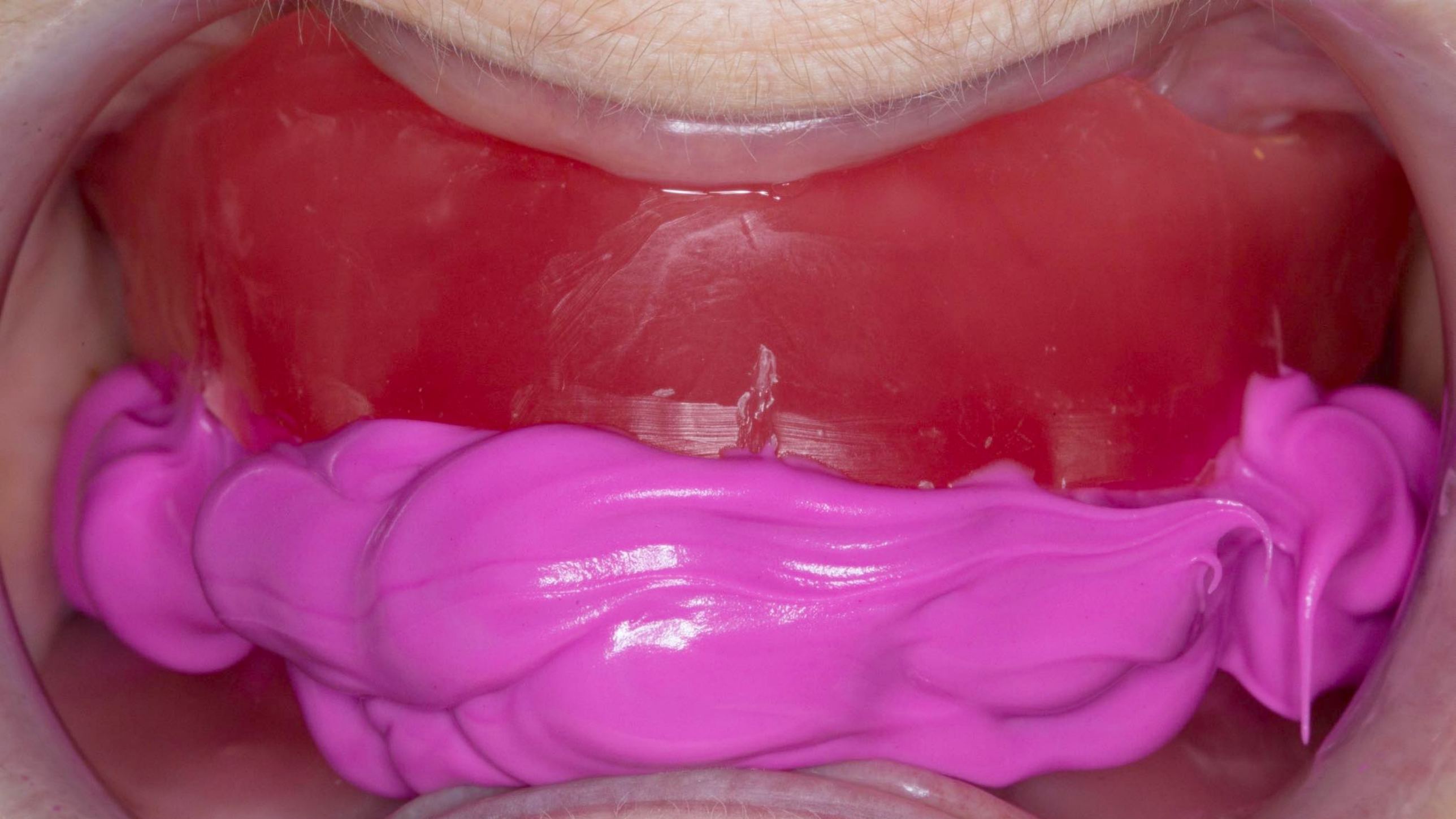
6 Occlusal Vertical Dimension

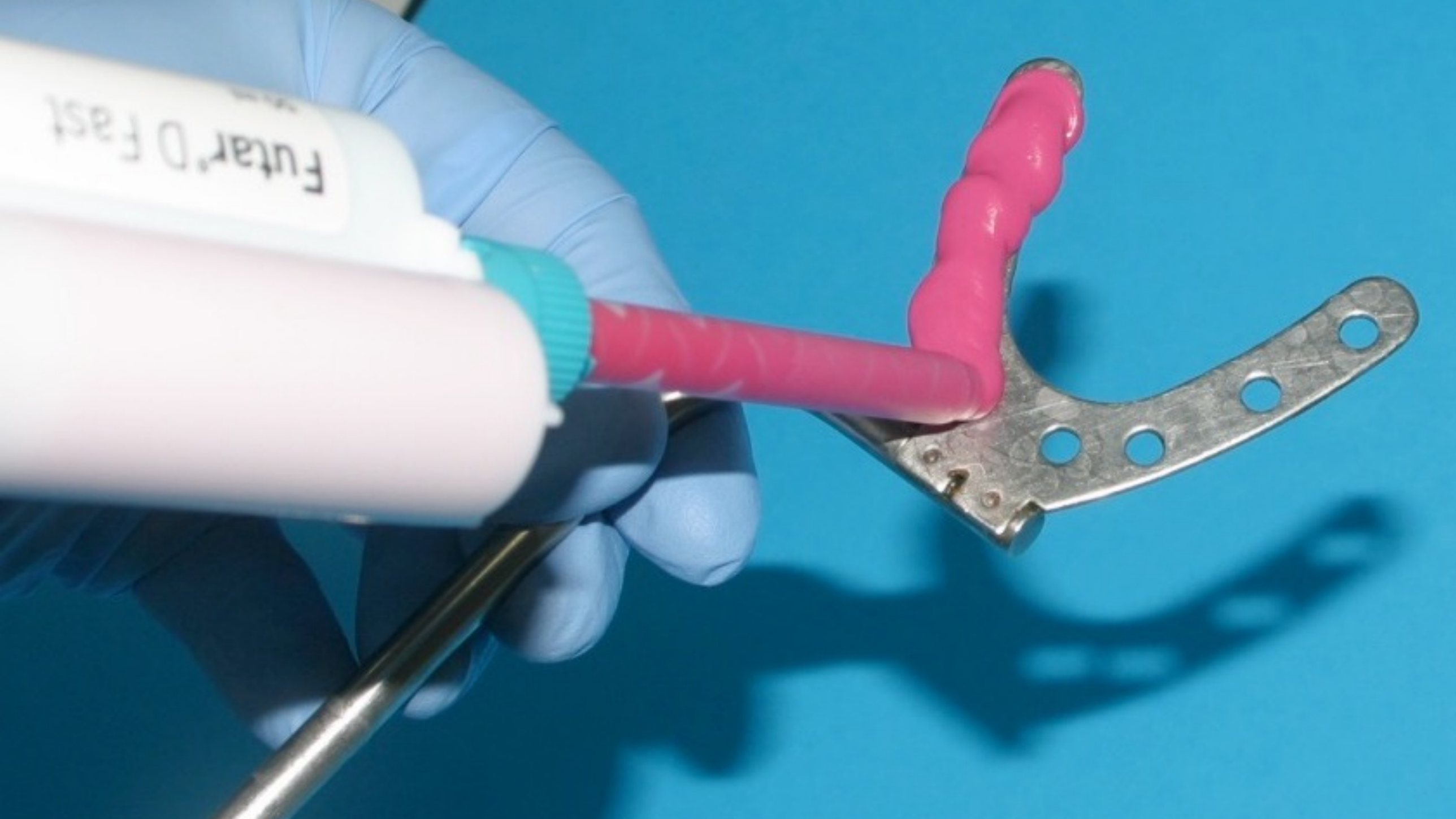


Robert Craig

Mentor and dental photography genius






Futar D Fast


2