Slide 1

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Dental Academy

Applying the Periodontal Classification in General Practice

Dr Sulaman Anwar

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Slide 2

Is it really that important?

- Periodontitis is one of the most common disease in humans
- Public health problem - quality of life & association with general health
- Top of the list in litigation

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Periodontal Litigation

Two main reasons:

FAILURE TO DIAGNOSE

FAILURE TO REFER
(AT AN APPROPRIATE TIME)

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The Top 20 UK Claims by Value (DPL 2015)

- Perio 44.7%
- Implants 28.8%
- Implants and Perio 5.5%
- Maxillofacial 5.5%
- Orthodontics 10.5%
- Other 5%

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Slide 5

Overview

New Periodontal Classification

Update on Referral Guidelines for Specialist Care

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Slide 6

Aims and Objectives

Revise over key points of new classification guidance

Illustrate implementation through case examples

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Perio Classification: Background

- Two decades since the last classification
- Advances in knowledge derived from research
- Joint European Federation of Periodontology (EFP) and American Academy of Periodontology (AAP)
- Consensus Published 2018
- Difficulty implementing it in the UK – BSP working group simplified this and developed guidance for practice

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Why Such an update?

"PRECISION MEDICINE" APPROACH AND ENABLING THE INCORPORATION OF RISK FACTORS.

CLASSIFICATION OF PERI-IMPLANT DISEASE

LIVE SYSTEM THAT WILL BE UPDATED REGULARLY

Table 1 – Basic classification of periodontal diseases and conditions

Periodontal health, gingival diseases and conditions:	
Periodontal health	
intact periodontium	
reduced periodontium*	
Gingivitis: dental biofilm-induced	
intact periodontium	
reduced periodontium*	
Gingival diseases and conditions: non-dental biofilm-induced	
Periodontitis	
Necrotising periodontal diseases	
Periodontitis**	
Periodontitis as a manifestation of systemic disease	
Other conditions affecting the periodontium	
Systemic diseases or conditions affecting the periodontal supporting tissues	
Periodontal abscesses and endodontic-periodontal lesions	
Mucogingival deformities and conditions	
Traumatic occlusal forces	
Tooth and prosthesis related factors	

*Reduced periodontium due to causes other than periodontitis, eg. crown lengthening surgery. **All patients with evidence of historical or current periodontitis should be staged/graded at initial consultation.

Periodontal Health

Intact periodontium	Health	Gingivitis
Probing attachment loss	No	No
Probing pocket depths (assuming no pseudo pockets)	≤3 mm	≤3 mm
Bleeding on probing	<10%	≥10%
Radiological bone loss	No	No

Health:
- Pocketing 3mm and below
- Less than 10% BOP allowed

Periodontitis 3 Types:

Periodontitis (No Chronic or Aggressive)*

Necrotising

Systemic Diseases

Say Goodbye to Chronic and Aggressive

- Little evidence from biological studies that chronic and aggressive periodontitis were separate entities (Just varying degrees over a continuous spectrum).
- The exception was classical localised juvenile (aggressive) periodontitis.

Key Considerations

- Classification (type of periodontal disease, staging and grading)
- Current disease status (based on PPD and BoP)
- Patient's risk factor profile

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5 Steps

Extent
Stage
Grade
Current Disease Status
Risk Factors

If there is bone loss:

Is this due to periodontitis?   **CHECK RADIOGRAPHS**

Extent - looking at radiographs

Localised (less than 30% of dentition)
Generalized (more than 30% of dentition)
Molar/Incisor Pattern

Staging

- Severity associated with complexity of patient management
- Based on PERCENTAGE bone loss
- Record WORST value at any site in the mouth

Staging

- For those with early stage periodontitis this may be limited to bitewings in posterior region
- Divide root into thirds

Slide 1

Stage I

✓ Interproximal bone loss: Early/Mild <15% or 2mm

Slide 2
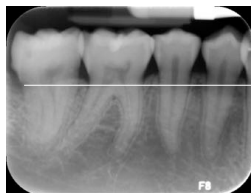
Stage II

Interproximal bone loss: Mod/Coronal third of root

Slide 3
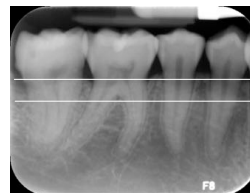
Stage III

⚠ Interproximal bone loss: Severe/Mid third of root

Slide 4
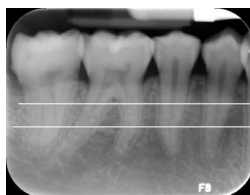
Stage IV

Interproximal bone loss: V. Severe/Apical third of root
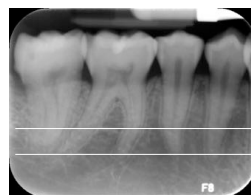
Staging Summary

Staging of periodontitis				
	Stage I (early/mild)	Stage II (moderate)	Stage III (severe)	Stage IV (very severe)
Interproximal bone loss*	<15% or <2 mm**	Coronal third of root	Mid third of root	Apical third of root

*Maximum bone loss in percentage of root length. **Measurement in mm from CEJ if only bitewing radiograph available (bone loss) or no radiographs clinically justified (CAL).

Stage

▶ In rare situations where a patient is clearly known to have lost teeth due to advanced periodontal bone loss, likely to have been within the apical third of the root, then clinicians may, on a case by case basis, immediately assign a Stage IV

▶ Patients cannot regress to a lower stage of periodontitis due to treatment

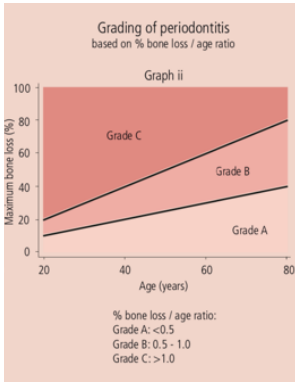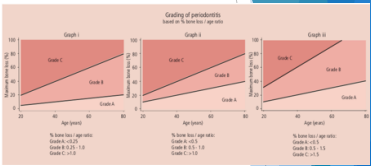Pre-Operative   Post-Surgery (12-months)
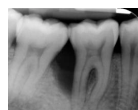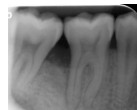
Grading

- Level of Susceptibility
- Predictor of future disease experience in the absence of treatment

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Grades

Grading of periodontitis based on % bone loss / age ratio

Graph ii

% bone loss / age ratio:
Grade A: <0.5
Grade B: 0.5 - 1.0
Grade C: >1.0

Grade C

Maximum amount of bone loss in percentage terms exceeds the patient's age in years

Percentage Bone Loss > Patient Age

Grade A

Maximum amount of radiographic bone loss in percentage terms is less than half the patient's age in years

Percentage Bone Loss < ½ Patient Age

Grade B

Otherwise

½ Patient Age > Percentage Bone Loss < Patient Age

Grading Summary

Grading of periodontitis			
	Grade A (slow)	Grade B (moderate)	Grade C (rapid)
% bone loss / age	<0.5	0.5–1.0	>1.0

Stage and Grade

- Are a reflection of historical disease experience
- Important in patients who have received periodontal therapy in the past
- A successfully treated periodontitis patient remains a **periodontitis patient for life** because the disease may progress at any time if periodontal maintenance is sub-optimal and risk factors are not controlled

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Current Disease Status

The 4 mm threshold is critical as it determines periodontal disease stability at non-bleeding sites following successful periodontal therapy

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Current Disease Status

- Stable
- Disease remission
- Unstable

- Stable
- Health / successfully treated patient
  (BoP <10%), PPD ≤4 mm, no BoP at 4 mm sites

- Disease Remission
- Recurrent gingival inflammation
  (BoP ≥10%) PPD ≤4 mm, no BoP at 4 mm sites

- Unstable
- Recurrent periodontitis
  BOP on sites that are ≥4 mm or any PPD ≥5mm

Lifestyle Risk Factors

- Documented as part of the classification
- Can be measured and have a good evidence base

Smoking   Diabetes

Diabetes

- Poor glycaemic control reduces the benefits of periodontal therapy
- No evidence to suggest that diabetic patients require antibiotics as part of periodontal therapy
- Documented improvement in glycaemic control following successful periodontal treatment (0.4% reduction in HbA1C, Simpson 2010)
- Every 1% reduction in HbA1C...

Smoking

- 10 million adult cigarette smokers
- Increase susceptibility & negatively impacts on periodontal health
- Dose dependent
- Poorer success rates in surgical as well as non-surgical therapy
- Greater disease recurrence or continued attachment loss during maintenance

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Smoking – Practical Tips

- Smoking cessation - Ask, Advise & Refer
- NHS stop-smoking services (nhs.uk/smokefree) almost triples odds of successfully quitting
- Cutting down has little benefit
- If patient's continue to smoke, warn them of the risk of poor outcomes and recurrence
- Usually avoid periodontal surgery

Risk Factors

- Medical history: Diabetes, immunodeficiency, obesity, pregnancy, medications
- Family history: Genetics
- Social history: Smoking, stress
- Dental history: Diet

Diagnostic Steps

1. Extent – localised / generalised / molar-incisor
2. Stage-I/II/III/IV
3. Grade-A/B/C
4. Current disease status – Stable / remission / unstable
5. Risk factor profile – smoking / diabetes

'Diagnostic statement' E.g. Generalised periodontitis; stage IV, grade B; currently unstable. Risk factor: smoking.

Case 1

- ► Female
- ► 48-years old
- ► MH Fit and Well
- ► FH Positive
- ► SH Smoking 10/day
- ► Pockets over 9mm
- ► BOP +++

1. Extent – localised / generalized / molar-incisor
2. Stage – I / II / III / IV
3. Grade – A / B / C
4. Current disease status – stable / remission / unstable
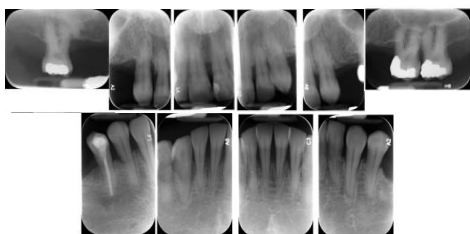5. Risk factor profile – smoking / diabetes / genetics

Case 1

- ► Female
- ► 48-years old
- ► MH Fit and Well
- ► FH Positive
- ► SH Smoking 10/day
- ► Pockets over 9mm
- ► BOP +++

1. Extent – Generalized
2. Stage – IV
3. Grade – C
4. Current disease status – Unstable
5. Risk factor profile – Smoking and Genetics

Case 2

- ► Male
- ► 52-years old
- ► MH GORD, High Cholesterol, High BP
- ► FH Positive
- ► SH Ex Smoker Quit 6-years ago
- ► Pockets over 7mm
- ► BOP ++

1. Extent – localised / generalized / molar-incisor
2. Stage – I / II / III / IV
3. Grade – A / B / C
4. Current disease status – stable / remission / unstable
5. Risk factor profile – smoking / diabetes / genetics

Case 2

- ► Male
- ► 52-years old
- ► MH GORD, High Cholesterol, High BP
- ► FH Positive
- ► SH Ex Smoker Quit 6-years ago
- ► Pockets over 7mm
- ► BOP ++

1. Extent – Generalized
2. Stage – IV
3. Grade – C
4. Current disease status – Unstable
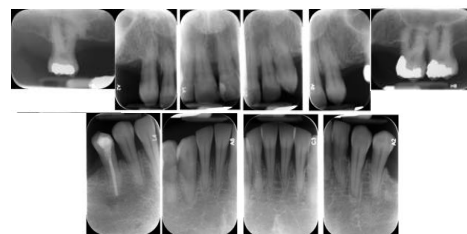5. Risk factor profile – Ex-Smoker and Genetics

Case 3

- ► Female
- ► 51-years old
- ► MH Diabetic
- ► FH Negative
- ► SH Smoking 2/day
- ► Pockets 7-9mm
- ► BOP +++

1. Extent – localised / generalized / molar-incisor
2. Stage – I / II / III / IV
3. Grade – A / B / C
4. Current disease status – stable / remission / unstable
5. Risk factor profile – smoking / diabetes / genetics

Case 3

- ► Female
- ► 51-years old
- ► MH Diabetic
- ► FH Negative
- ► SH Smoking 2/day
- ► Pockets 7-9mm
- ► BOP +++

1. Extent – Generalized
2. Stage – IV
3. Grade – C
4. Current disease status – Unstable
5. Risk factor profile – Smoking and Diabetes

Case 4

1. Extent – localised / generalized / molar-incisor
2. Stage – I / II / III / IV
3. Grade – A / B / C
4. Current disease status – stable / remission / unstable
5. Risk factor profile – smoking / diabetes / genetics
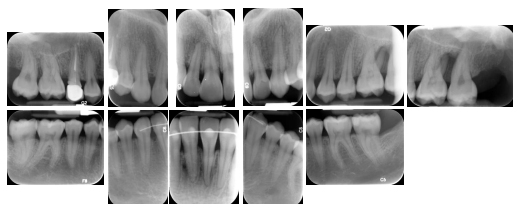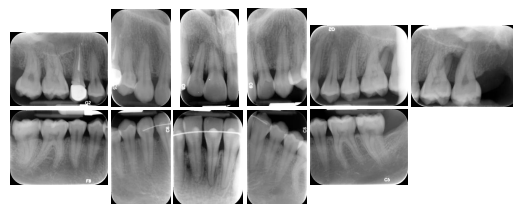
▶ Female
▶ 27-years old
▶ MH Fit & Well
▶ FH Negative
▶ SH Non-Smoker
▶ Pockets 5-6mm around UL6/7
▶ BOP ++

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Case 4

1. Extent – Localised
2. Stage – III
3. Grade – C
4. Current disease status – Unstable
5. Risk factor profile – None

▶ Female
▶ 27-years old
▶ MH Fit & Well
▶ FH Negative
▶ SH Non-Smoker
▶ Pockets 5-6mm around UL6/7
▶ BOP ++

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Case 5

1. Extent – localised / generalized / molar-incisor
2. Stage – I / II / III / IV
3. Grade – A / B / C
4. Current disease status – stable / remission / unstable
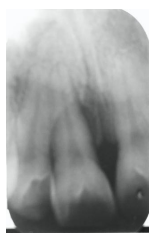5. Risk factor profile – smoking / diabetes / genetics

▶ Female
▶ 23-years old
▶ MH Mild Asthma
▶ FH Positive
▶ SH Ex-Smoker, quit 12-months ago.
▶ Pockets 5-7mm, UL6/7 10-12mm
▶ BOP ++

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Case 5

1. Extent – Localised
2. Stage – IV
3. Grade – C
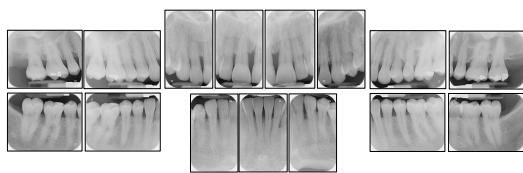4. Current disease status – Unstable
5. Risk factor profile – Ex-smoker

▶ Female
▶ 23-years old
▶ MH Mild Asthma
▶ FH Positive
▶ SH Ex-Smoker, quit 12-months ago.
▶ Pockets 5-7mm, UL6/7 10-12mm
▶ BOP ++

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Case 6

1. Extent – localised / generalized / molar-incisor
2. Stage – I / II / III / IV
3. Grade – A / B / C
4. Current disease status – stable / remission / unstable
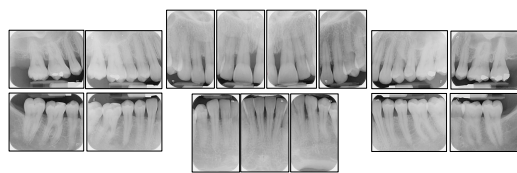5. Risk factor profile – smoking / diabetes / genetics

▶ Male
▶ 30-years old
▶ MH Fit & Well
▶ FH Negative
▶ SH Non-Smoker
▶ Pockets 7mm, around UR1 UL1
▶ BOP Very low

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Case 6
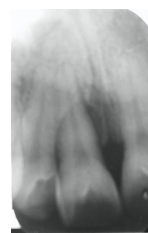
1. Extent – Localised
2. Stage – III
3. Grade – C
4. Current disease status – Unstable
5. Risk factor profile – None

▶ Male
▶ 30-years old
▶ MH Fit & Well
▶ FH Negative
▶ SH Non-Smoker
▶ Pockets 7mm, around UR1 UL1
▶ BOP Very low

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Case 7

- Female
- 36-years old
- MH Fit & Well
- FH Negative
- SH Non-Smoker
- Pockets 5-7mm,
- BOP +++

1. Extent – localised / generalized / molar-incisor
2. Stage – I / II / III / IV
3. Grade – A / B / C
4. Current disease status – stable / remission / unstable
5. Risk factor profile – smoking / diabetes / genetics

Case 7

- Female
- 36-years old
- MH Fit & Well
- FH Negative
- SH Non-Smoker
- Pockets 5-7mm,
- BOP +++

1. Extent – Generalized
2. Stage – III
3. Grade – C
4. Current disease status – Unstable
5. Risk factor profile – None

Case 8

- Male
- 51-years old
- MH Fit & Well
- FH Negative
- SH Non-Smoker
- Pockets 5-8mm,
- BOP +++

1. Extent – localised / generalized / molar-incisor
2. Stage – I / II / III / IV
3. Grade – A / B / C
4. Current disease status – stable / remission / unstable
5. Risk factor profile – smoking / diabetes / genetics

Case 8

- Male
- 51-years old
- MH Fit & Well
- FH Negative
- SH Non-Smoker
- Pockets 5-8mm,
- BOP +++

1. Extent – Generalized
2. Stage – III
3. Grade – B
4. Current disease status – Unstable
5. Risk factor profile – None

BPE

- BPE interpretation has not changed - screening tool

- Limited value in patients who have already been diagnosed with periodontitis

- If there is obvious evidence at initial presentation of historical periodontitis this should trigger a full periodontal assessment

- A maximum BPE code of 4 would trigger periapical radiographs (or a panoramic radiograph) and a detailed pocket chart

BPE Changes

If a Code 3 is detected then perform initial therapy including self-care advice (OHI and risk factor control) first then post initial therapy, record a 6-point pocket chart in that sextant only
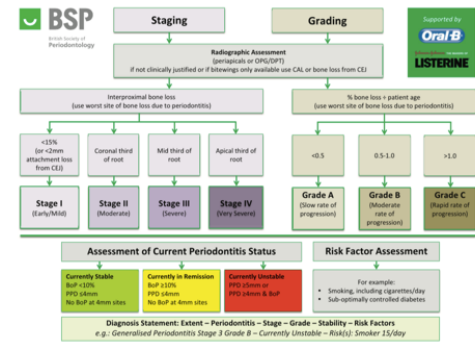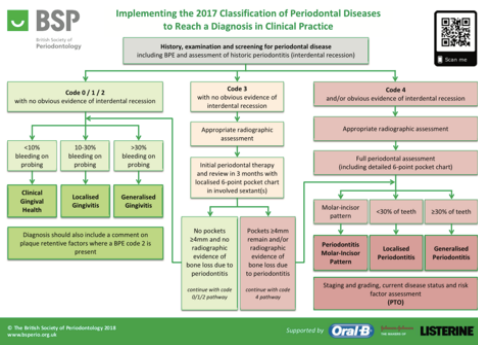
BPE Changes

The BPE should **not** be used around implants
(4 or 6-point pocket charting recommended)

BPE Changes

Radiographs should be taken for all Code 3 and Code 4 sextants

The type of radiograph used is a matter of clinical judgment but crestal bone levels should be visible. The periapical view is the gold standard
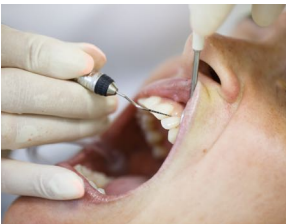
BPE Changes

Bleeding on probing should always be recorded in conjunction with a 6-point pocket chart

Implementing the 2017 Classification of Periodontal Diseases to Reach a Diagnosis in Clinical Practice

Checking Peri-Implant Health

▶ Visually inspect and palpate
▶ Bleeding
▶ Probing depths

Peri-Implant Health

- Absence of clinical signs of inflammation
- Absence of bleeding/suppuration on gentle probing
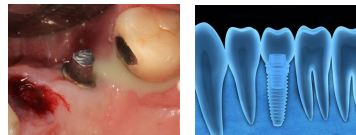- No increase in probing depth compared to previous examinations
- No bone loss
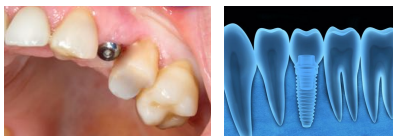
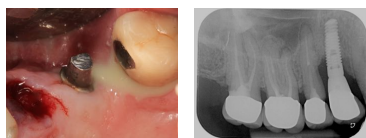
Peri-Implant Mucositis

- Bleeding and/or suppuration on gentle probing
- No bone loss

Peri-Implantitis

- Bleeding and/or suppuration on gentle probing
- Increased probing depth compared to previous examinations
- Bone loss

Peri-Implantitis

In the absence of previous examination data, a diagnosis of peri-implantitis can be based on the combination of:

- Bleeding and/or suppuration on gentle probing
- Probing depths of ≥6mm

When to Refer

- Cases feel uncomfortable in managing alone– extent/complexity
- The BSP has created guidelines for referral

When to Refer

- Much easier for patients to allege, after the event, that they would have preferred a referral for specialist care
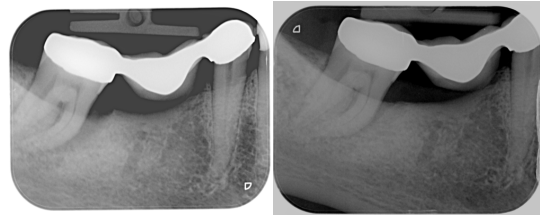- Minimise any delay in referral

What to look out for – Periodontitis

- Severity
- Susceptibility
- Optimal oral hygiene but not responding well to conventional non-surgical treatment
- Residual deep pockets
- Vertical bony defects / complex anatomy
- Gingival overgrowth

Non-Surgical Treatment

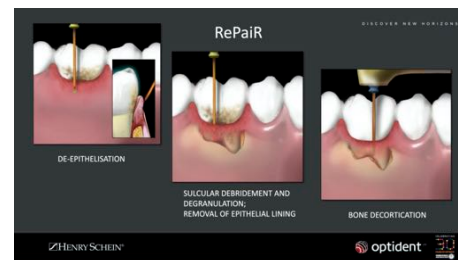## Periodontal Laser Treatment Evidence

- As effective as scaling and root planing
- Less recession and less post operative pain
- Minimally invasive – may be a suitable alternative to periodontal surgery
- New attachment/New bone infill outcomes
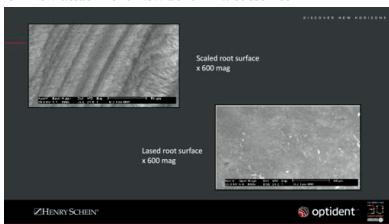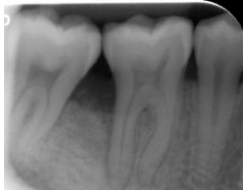

Periodontal Laser Treatment

Surgical Regeneration

Pre-Operative

Post-Operative (12-months)

What to look out for – Recession

- Recession post ortho
- Recession due to overzealous brushing
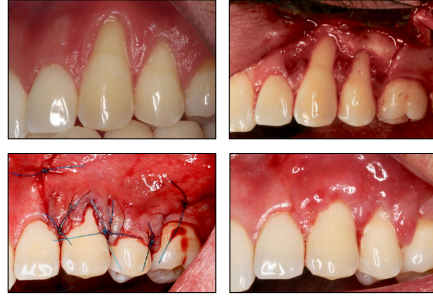- Big teeth, narrow arch

Free Gingival Grafts

Coronally Advanced Flap with CTG

The Pinhole Technique®

Before

After 8-years

What to look out for – Crown Lengthening

- ▶ Aesthetic crown lengthening
- ▶ Restorative/Functional crown lengthening

Aesthetic Crown Lengthening

Aesthetic Crown Lengthening

Functional Crown Lengthening

Scope of Practice

- Comprehensive periodontal assessment and report
- Tailored oral hygiene instruction
- Non-surgical periodontal therapy
- Surgical periodontal therapy
- Management of peri-implantitis
- Supportive periodontal therapy

Benefits of Referral

- Medicolegally covered
- Optimal patient-care – periodontal health, general health
- Patients won't get lost!
- Collaborative approach – 2-way referral process

Common Questions/Difficulties

Can't I just have it done on the NHS?

That's expensive…

I'm not sure…

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What to Say to Your Patient

- ► Severity of condition
- ► Cost per tooth
- ► Risk of losing teeth
- ► Risk to general health
- ► Benefit from specialist treatment then back to me once healthy

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Thank You and Stay Safe!

"And the people stayed home. And read books, and listened, and rested, and exercised, and made art, and played games, and learned new ways of being, and were still. And listened more deeply. Some meditated, some prayed, some danced. Some met their shadows. And the people began to think differently.

"And the people healed. And, in the absence of people living in ignorant, dangerous, mindless, and heartless ways, the earth began to heal.

And when the danger passed, and the people joined together again, they grieved their losses, and made new choices, and dreamed new images, and created new ways to live and heal the earth fully, as they had been healed."

Kitty O'Meara

STAY AT HOME
PROTECT THE NHS
♥ save lives

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