



The SAC Assessment Tool

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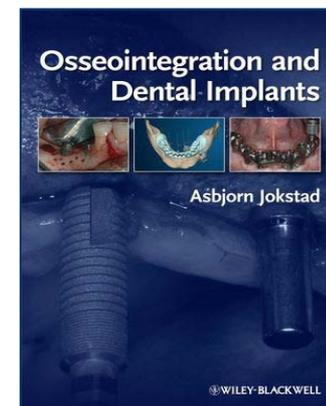
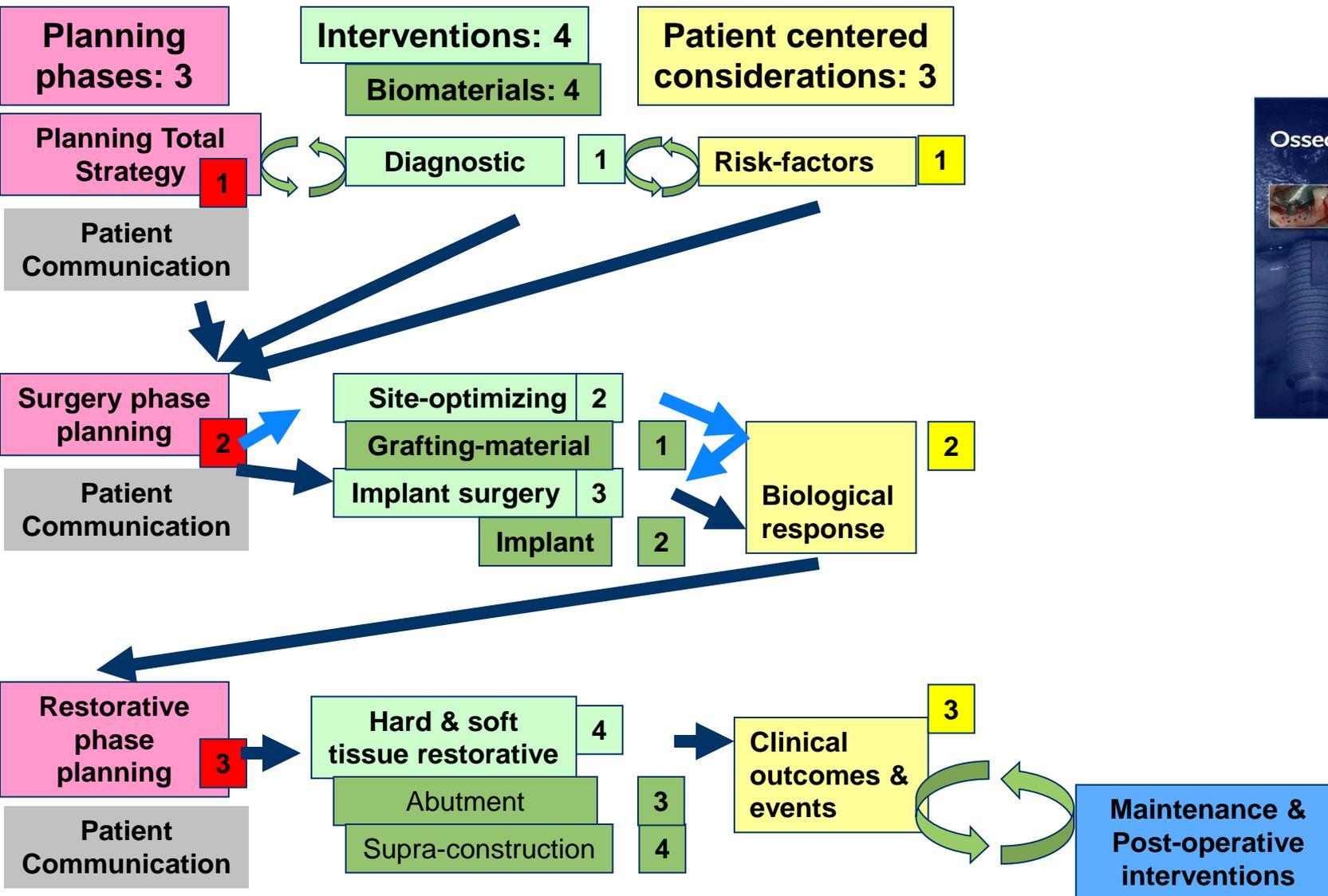


The SAC
Assessment Tool

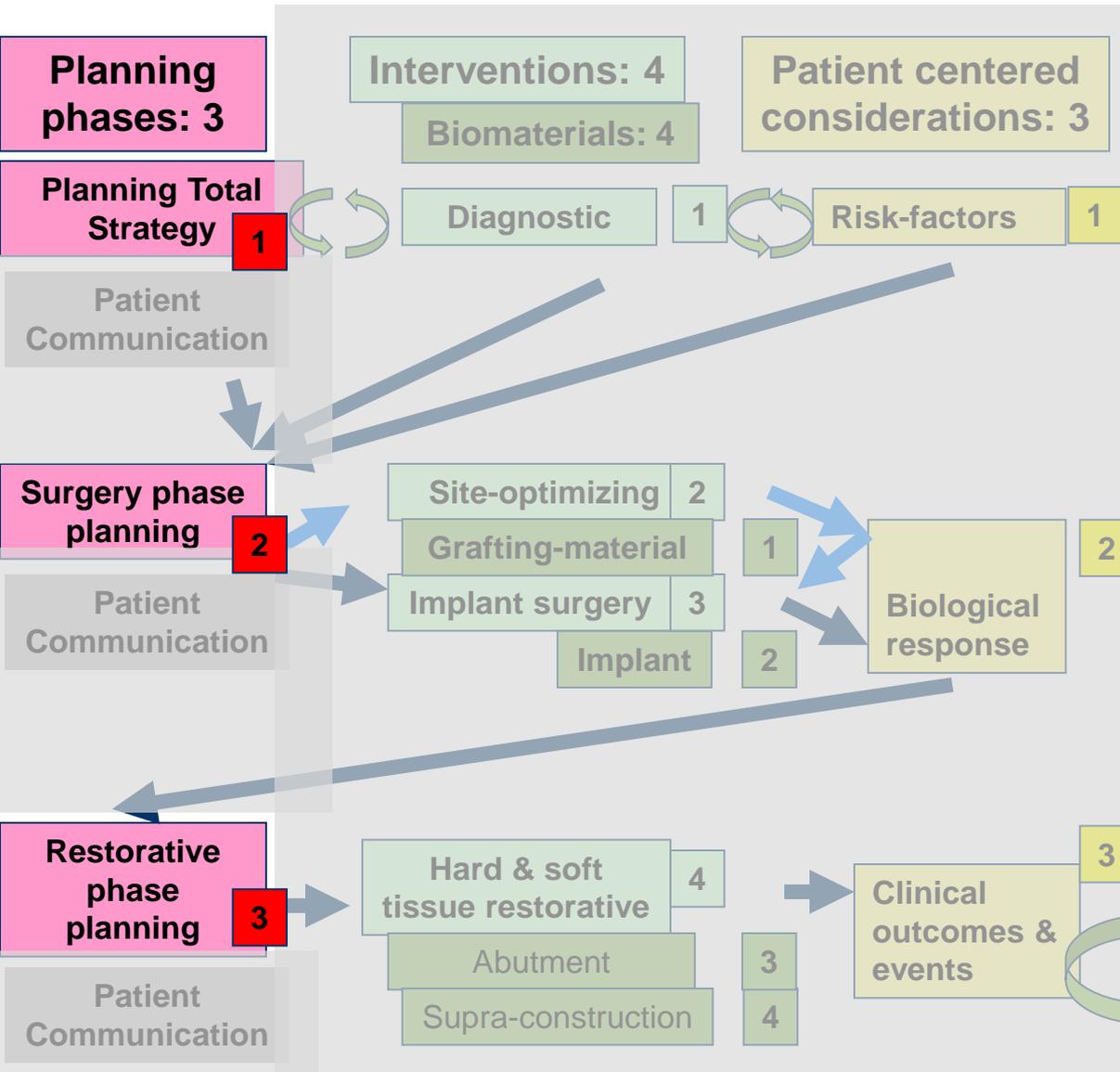
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S *Straightforward*
A *Advanced*
C *Complex*

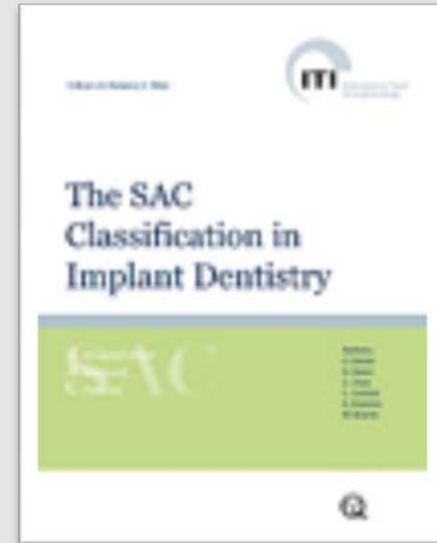
The 10 steps of Implant Prosthetic Treatment



The 3 planning phases of Implant Prosthetic Treatment

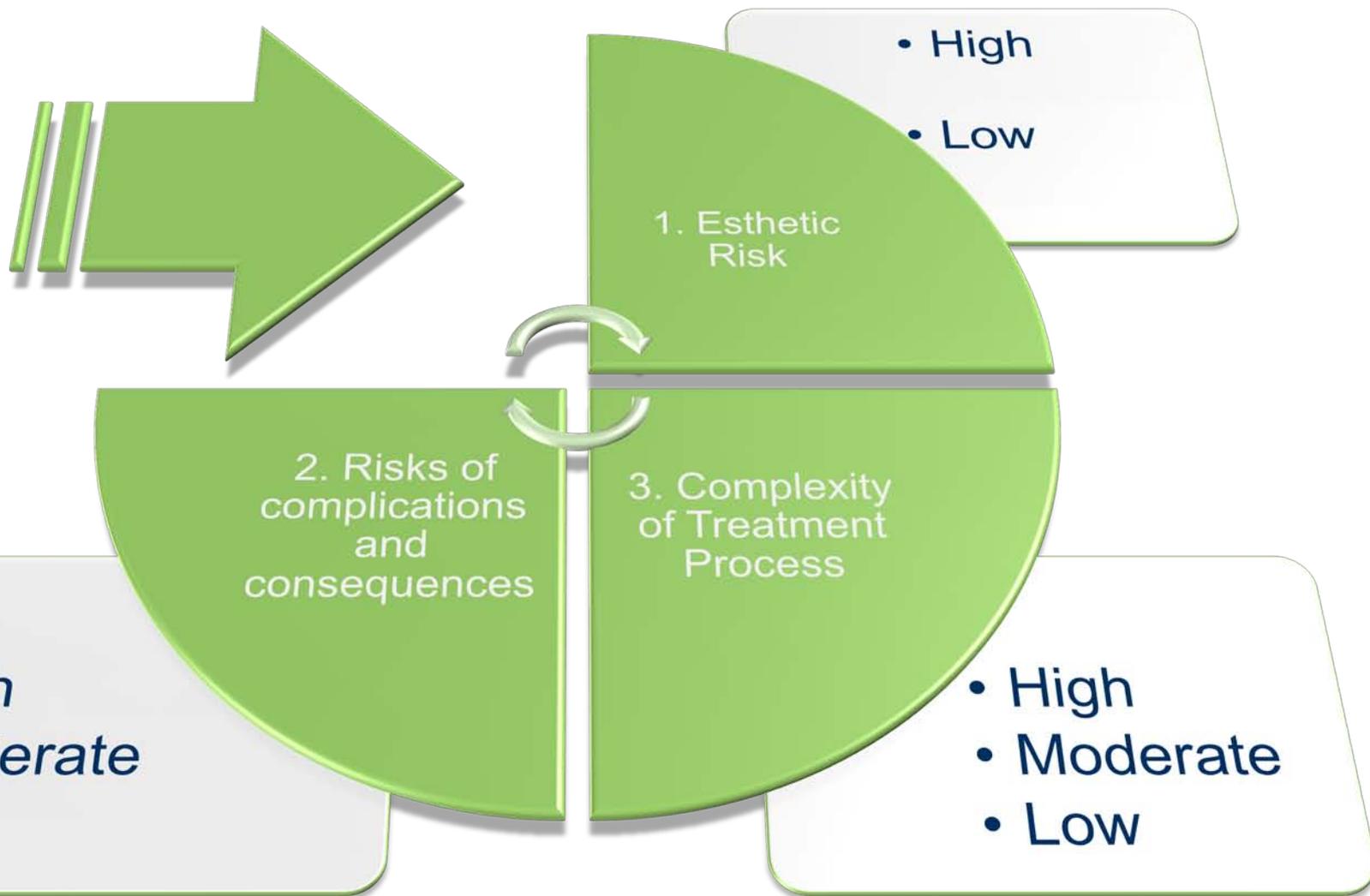


Dawson A, Chen S



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General Determinants of the Normative SAC classification



Modifying Factors determining the Final SAC classification



A diagram consisting of two overlapping rounded rectangular shapes. The top shape is light grey and contains a bulleted list of modifying factors. The bottom shape is green and contains the text '1. General'. A small grey arc is visible at the bottom right corner of the green shape.

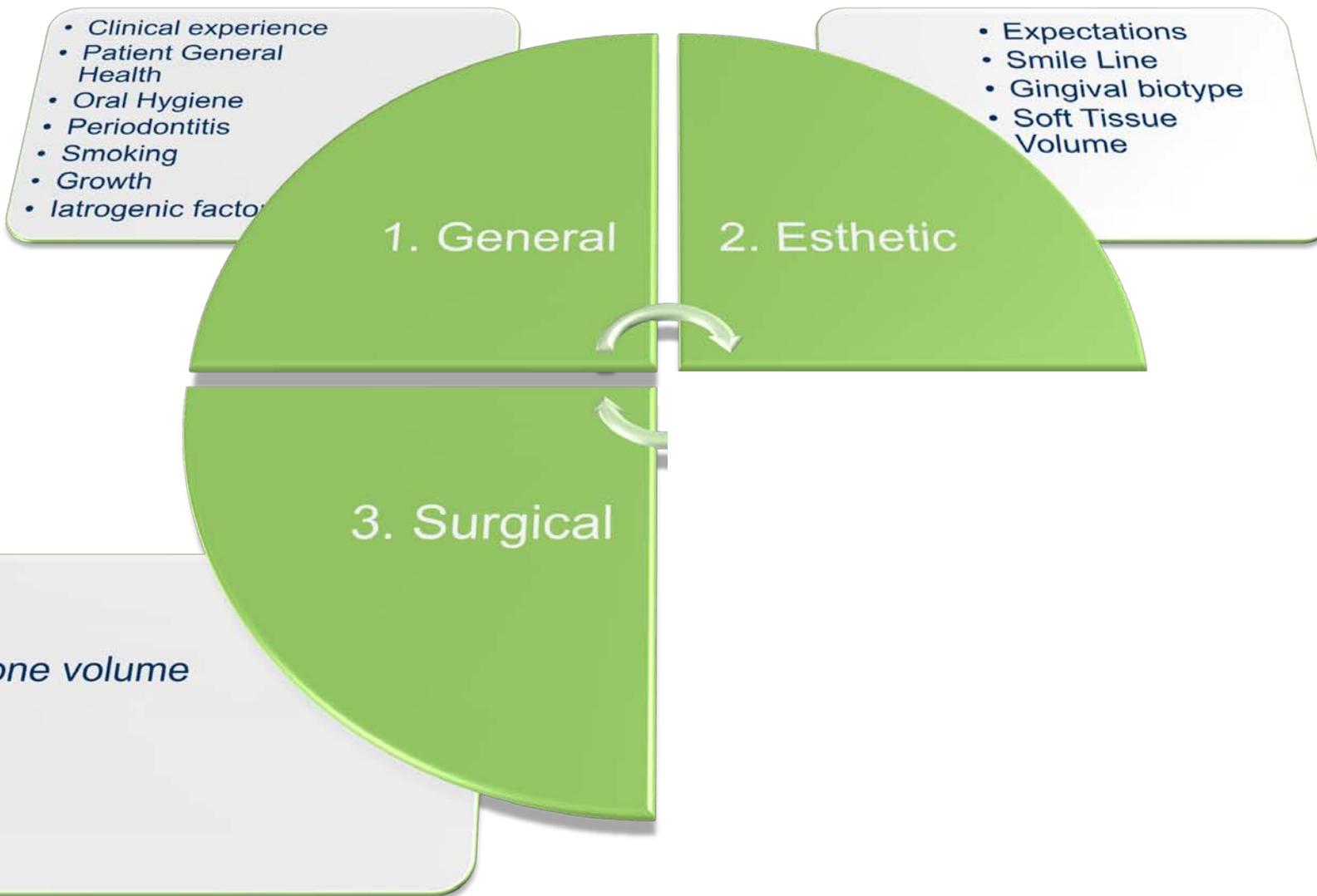
- *Clinical experience*
- *Patient General Health*
- *Oral Hygiene*
- *Periodontitis*
- *Smoking*
- *Growth*
- *Iatrogenic factors*

1. General

Modifying Factors determining the Final SAC classification



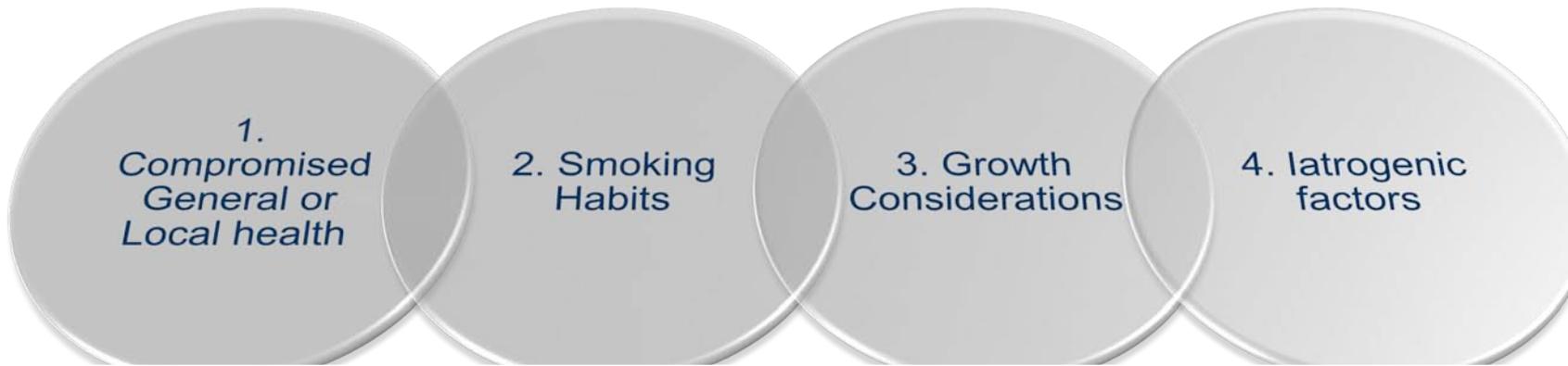
Modifying Factors determining the Final SAC classification



Modifying Factors determining the Final SAC classification



General Modifying Factors



<u>High Risk</u>	Reduced Immune system	Heavy Smoker (>10 cigs/day)	Ongoing	Sub-optimal preceding outcome
<u>Moderate Risk</u>		Light smoker (<10 cigs/day)		Moderate / Suboptimal outcome
<u>Low Risk</u>	Healthy, co-operative with an intact immune system	Non-smoker	Completed	Optimal

Esthetic Modifying Factors



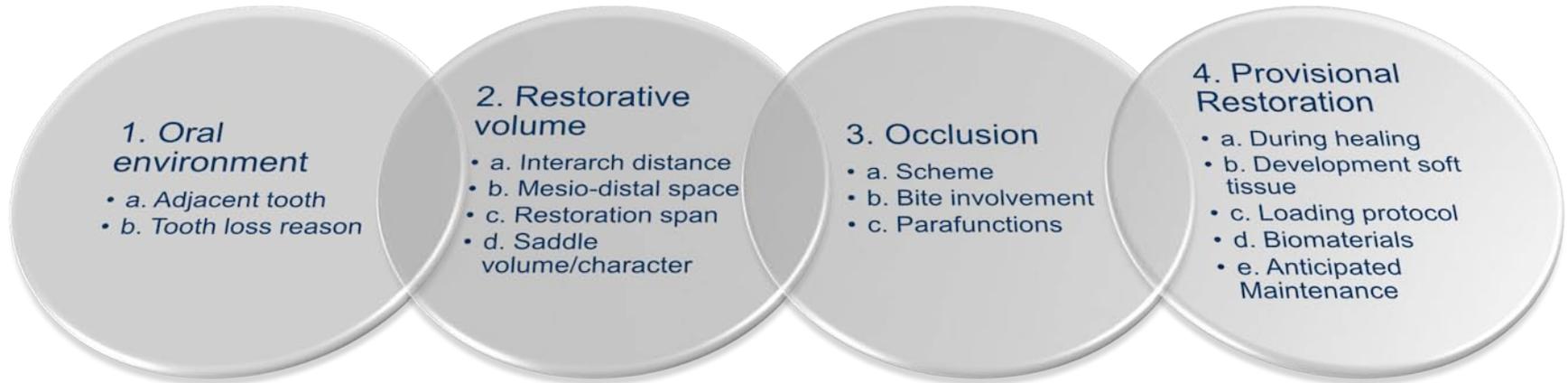
<u>High Risk</u>	High	High	High scalloped, thin	Triangular	Acute	≥ 7 mm to contact point & Restored	≥ 2 teeth	Soft tissue defects	Vertical bone deficiency
<u>Moderate Risk</u>	Medium	Medium	Medium scalloped, medium thick		Chronic	5.5-6.5mm to contact point	1 tooth (≤ 7 mm)		Horizontal bone deficiency
<u>Low Risk</u>	Low	Low	Low scalloped, thick	Rectangular	None	≤ 5 mm to contact point & Virgin	1 tooth (≥ 7 mm)	Intact soft tissue	No bone deficiency

Surgical Modifying Factors



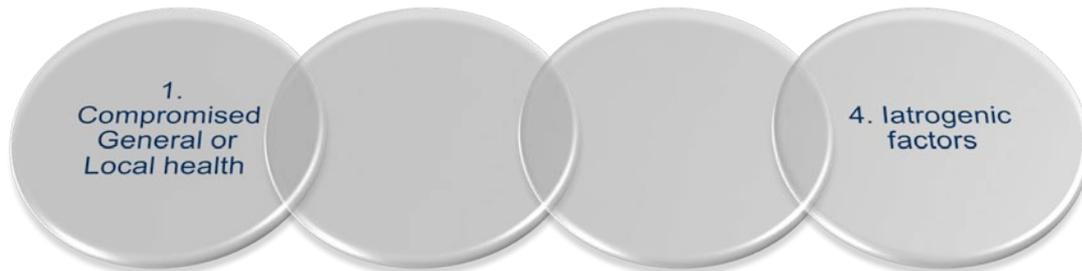
<u>High Risk / degree of difficulty</u>	Deficient, requiring prior augmentation	High risk of involvement	Yes /Thin /Insufficient <1mm	Implant placement with staged procedures	High / Severely compromised outcome
<u>Moderate Risk / degree of difficulty</u>	Deficient, but allowing simultaneous augmentation	Moderate risk of involvement		Implant placement with simultaneous procedures	Moderate / Suboptimal outcome
<u>Low Risk / degree of difficulty</u>	Adequate	Minimal risk of involvement	No /Thick /Sufficient > 1mm	Implant placement without adjunctive procedures	Minimal / No adverse effect

Restorative Modifying Factors

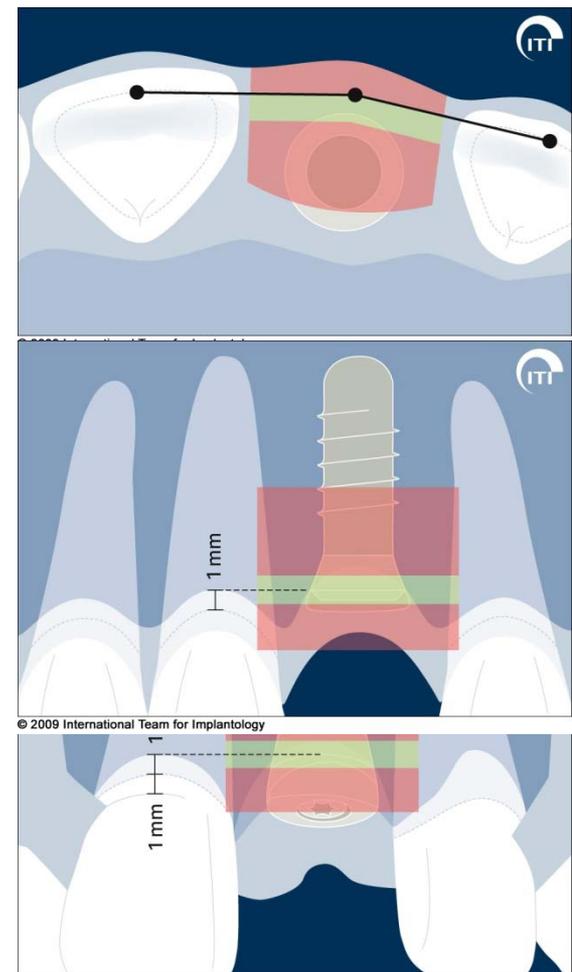


<u>High Risk / degree of difficulty</u>	a. Virgin / b. Periodontal disease or parafunction	a. Adjunctive therapy needed to gain sufficient space or b. to achieve satisfactory result /c. Full arch / d. Required	a. No guidance /b. Involved in guidance /c. Present	a. Fixed /b. Margin > 3mm from crest /c. Immediate /d. --/e. High
<u>Moderate Risk / degree of difficulty</u>		a. Restricted / b. some reduction required /c. Extended space		a. Removable /b. Margin <3mm from crest /c. -- /d. PFM /e. Moderate
<u>Low Risk / degree of difficulty</u>	a. Restored teeth / b. Caries or Trauma	a. Adequate /b. Sufficient /c. Single tooth / d. Not required	a. Anterior guidance /b. minimal involvement /c. Absent	a. None /b. not required /c. Conventional/Early d. Resin-metal /e. Low

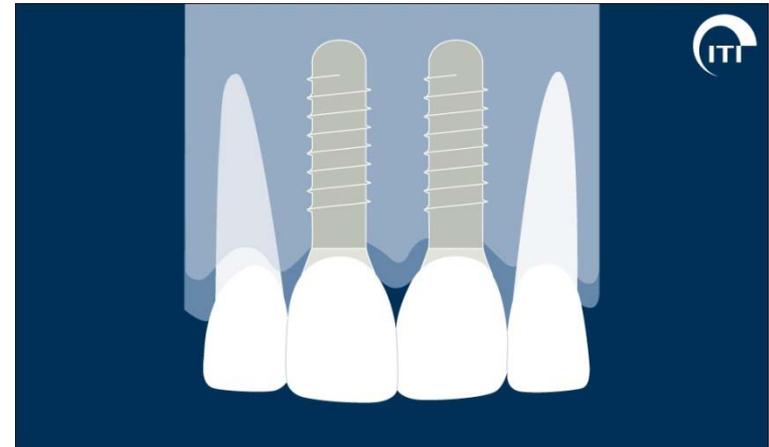
Examples, **General** Modifying Factors



Risk Factor	Remarks
Medical	<ul style="list-style-type: none"> • Severe bone disease causing impaired bone healing • Immunological disease • Medication with steroids • Uncontrolled diabetes mellitus • Irradiated bone • Others
Periodontal	<ul style="list-style-type: none"> • Active periodontal disease • History of refractive periodontitis • Genetic predisposition
Oral Hygiene/ Compliance	<ul style="list-style-type: none"> • Home care measured by gingival indices • Personality, intellectual aspects
Occlusion	<ul style="list-style-type: none"> • Bruxism



Example, Esthetic Modifying Factors



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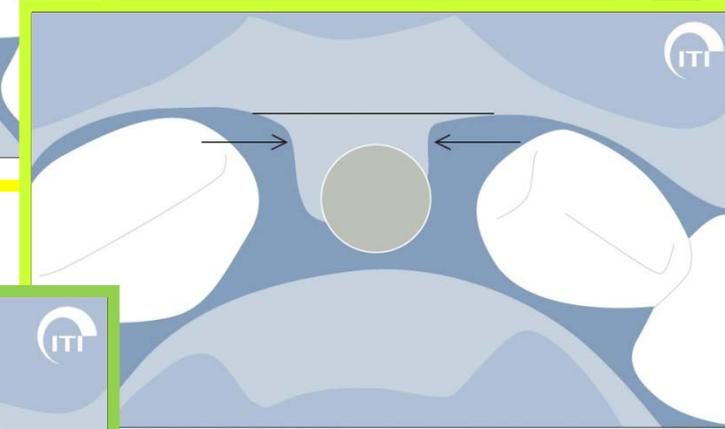
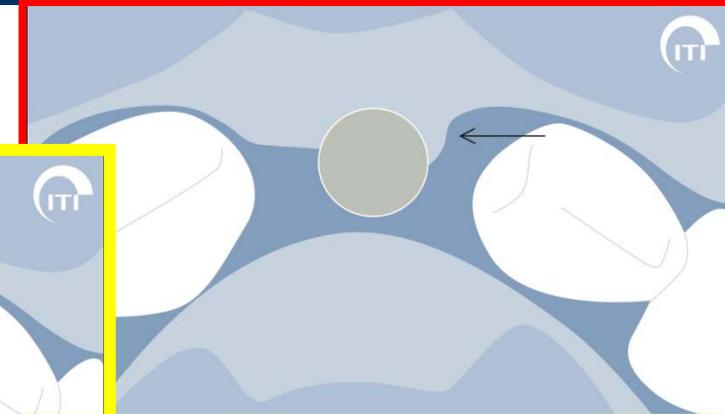
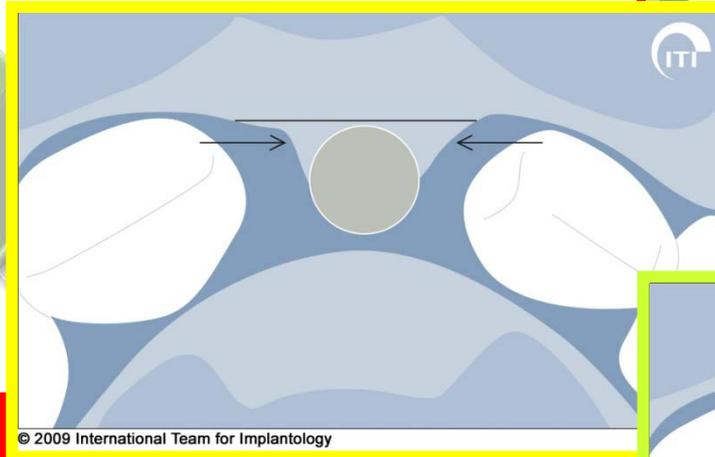
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Example, **Surgical** Modifying Factors

ITI

Bone volume

- Horizontal
- Vertical



High Risk / degree of difficulty

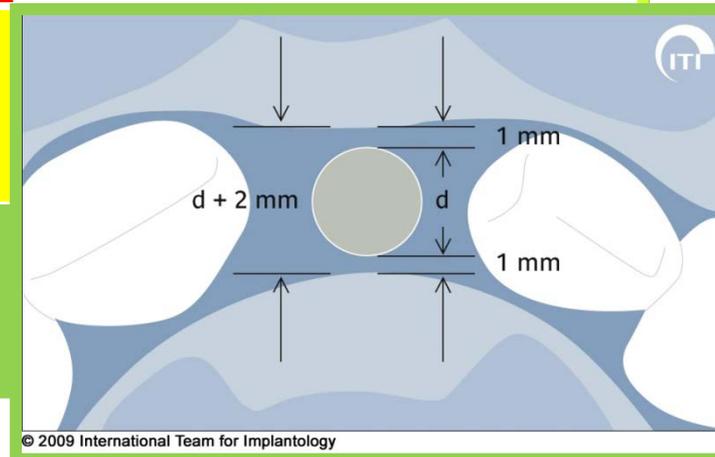
Deficient, requiring prior augmentation

Moderate Risk / degree of difficulty

Deficient, but allowing simultaneous augmentation

Low Risk / degree of difficulty

Adequate



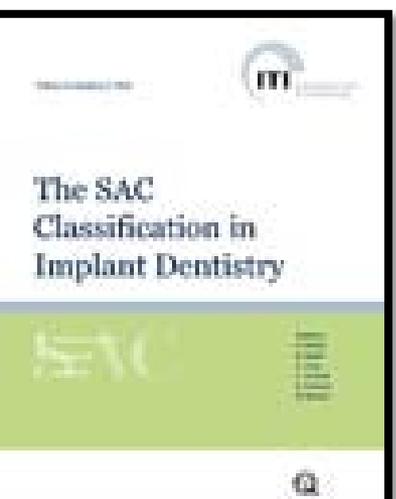
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Implant Size	Core Diameter* Range (mm)	Minimum Horizontal Bone Dimension (mm)
Narrow diameter implants	3.0 to 3.5	5.0 to 5.5
Standard diameter implants	3.5 to 4.5	5.5 to 6.5
Wide diameter implants	4.5 to 6.0	6.5 to 8.0

Normative Surgical SAC classification

Areas of Low Esthetic Risk		Case Type: Single Tooth Space				
Risk Assessment					Normative Classification	Notes/Adjunctive Procedures that may be required
Bone Volume	Anatomic Risk	Esthetic Risk	Complexity	Risk of Complications		
Defining Characteristics: One implant						
Sufficient	Low	Low	Low	Low	Straight-forward	
Deficient horizontally, allowing simultaneous augmentation	Low	Low	Moderate	Low	Advanced	Procedures for simultaneous horizontal bone augmentation Low risk of complications for small defects, but risk may increase for larger defects Donor site morbidity
Deficient horizontally, requiring prior grafting	Low	Low	High	Moderate	Complex	Procedures for horizontal bone augmentation Involvement of the mental foramina in the mandible Donor site morbidity
Deficient vertically	High	Low	High	High	Complex	Procedures for vertical and/or horizontal bone augmentation Involvement of the mental foramina in the mandible Procedures for sinus floor grafting Risk to adjacent teeth with some vertical augmentation procedures Donor site morbidity

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Normative Surgical SAC classification

Areas of Low Esthetic Risk		Case Type: Short Edentulous Space					Normative Classification	Notes/Adjunctive Procedures that may be required			
Risk Assessment					Bone Volume	Anatomic Risk			Esthetic Risk	Complexity	Risk of Complications
Bone Volume	Anatomic Risk	Esthetic Risk	Complexity	Risk of Complications							
Defining Characteristics: Two implants and up to 3 teeth replaced											
Sufficient	Low	Low	Low	Low	Low	Straight-forward					
Deficient horizontally, allowing simultaneous grafting	Low	Low	Moderate	Moderate	Moderate	Advanced	Procedures for simultaneous horizontal bone augmentation Low risk of complications for small defects, but risk may increase for larger defects Donor site morbidity				
Deficient horizontally, requiring prior grafting	Low	Low	High	Moderate	Moderate	Complex	Procedures for horizontal bone augmentation Low risk of complications for small defects, but risk may increase for larger defects Donor site morbidity Involvement of the mental foramina in the mandible Donor site morbidity				
Deficient vertically and/or horizontally	High	Low	High	High	High	Complex	Procedures for vertical and/or horizontal bone augmentation Involvement of the mental foramina in the mandible Procedures for sinus floor grafting Risk to adjacent teeth with some vertical augmentation procedures Donor site morbidity				

Areas of Low Esthetic Risk		Case Type: Single Tooth Space					Normative Classification	Notes/Adjunctive Procedures that may be required			
Risk Assessment					Bone Volume	Anatomic Risk			Esthetic Risk	Complexity	Risk of Complications
Bone Volume	Anatomic Risk	Esthetic Risk	Complexity	Risk of Complications							
Defining Characteristics: One implant											
Sufficient	Low	Low	Low	Low	Low	Straight-forward					
Deficient horizontally, allowing simultaneous augmentation	Low	Low	Moderate	Low	Low	Advanced	Procedures for simultaneous horizontal bone augmentation Low risk of complications for small defects, but risk may increase for larger defects Donor site morbidity				
Deficient horizontally requiring prior grafting	Low	Low	High	Moderate	Moderate	Complex	Procedures for horizontal bone augmentation Involvement of the mental foramina in the mandible Donor site morbidity				
Deficient vertically	High	Low	High	High	High	Complex	Procedures for vertical and/or horizontal bone augmentation Involvement of the mental foramina in the mandible Procedures for sinus floor grafting Risk to adjacent teeth with some vertical augmentation procedures Donor site morbidity				



The SAC Classification in Implant Dentistry

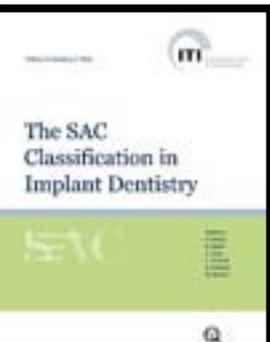


Normative Surgical SAC classification

Areas of Low Esthetic Risk		Case Type: Extended Edentulous Space					Normative Classification	Notes/Adjunctive Procedures that may be required
Risk Assessment								
Bone Volume	Anatomic Risk	Esthetic Risk	Complexity	Risk of Complications				
Defining Characteristics: More than 2 implants, span of more than 3 teeth								
Sufficient	Low	Low	Moderate	Low		Straight-forward	None	
Deficient horizontally, allowing simultaneous grafting	Moderate	Low	Moderate	Moderate		Advanced	Procedures for simultaneous horizontal bone augmentation Low risk of complications for small defects, but risk may increase for larger defects Donor site morbidity Procedures for horizontal	
Deficient horizontally, requiring prior grafting	Moderate	Low	High	Moderate		Complex	Procedures for horizontal bone augmentation Involvement of the mental foramina in the mandible Donor site morbidity	
Deficient vertically and/or horizontally	High	Low	High	High		Complex	Procedures for vertical and/or horizontal bone augmentation Involvement of the mental foramina in the mandible Procedures for sinus floor grafting Risk to adjacent teeth with some vertical augmentation procedures Donor site morbidity	
Deficient vertically, with or without a horizontal defect	High	Low	High	High		Complex	Risk to adjacent teeth Procedures for vertical and/or horizontal bone augmentation Involvement of the mental foramen and inferior alveolar nerve in the mandible Procedures for sinus floor grafting Donor site morbidity	

Areas of Low Esthetic Risk		Case Type: Single Tooth Space					Normative Classification	Notes/Adjunctive Procedures that may be required
Risk Assessment								
Bone Volume	Anatomic Risk	Esthetic Risk	Complexity	Risk of Complications				
Defining Characteristics: One implant								
Sufficient	Low	Low	Low	Low		Straight-forward		
Deficient horizontally, allowing simultaneous augmentation	Low	Low	Moderate	Low		Advanced	Procedures for simultaneous horizontal bone augmentation Low risk of complications for small defects, but risk may increase for larger defects Donor site morbidity Procedures for horizontal	

Areas of Low Esthetic Risk		Case Type: Short Edentulous Space					Normative Classification	Notes/Adjunctive Procedures that may be required
Risk Assessment								
Bone Volume	Anatomic Risk	Esthetic Risk	Complexity	Risk of Complications				
Defining Characteristics: Two implants and up to 3 teeth replaced								
Sufficient	Low	Low	Low	Low		Straight-forward		
Deficient horizontally, allowing simultaneous grafting	Low	Low	Moderate	Moderate		Advanced	Procedures for simultaneous horizontal bone augmentation Low risk of complications for small defects, but risk may increase for larger defects Donor site morbidity	
Deficient horizontally, requiring prior grafting	Low	Low	High	Moderate		Complex	Procedures for horizontal bone augmentation Involvement of the mental foramina in the mandible Donor site morbidity	
Deficient vertically and/or horizontally	High	Low	High	High		Complex	Procedures for vertical and/or horizontal bone augmentation Involvement of the mental foramina in the mandible Procedures for sinus floor grafting Risk to adjacent teeth with some vertical augmentation procedures Donor site morbidity	



Normative Surgical SAC classification

Areas of Low Esthetic Risk		Case Type: Full Arch – Mandible					
Risk Assessment						Normative Classification	Notes/Adjunctive Procedures that may be required
Bone Volume	Anatomic Risk	Esthetic Risk	Complexity	Risk of Complications			
Defining Characteristics: 2 implants, interforaminal region							
Sufficient	Low	Low	Low	Low	Low	Straight-forward	None
Deficient, but allowing simultaneous bone augmentation	Moderate	Low	Moderate	Moderate	Moderate	Advanced	Risk of perforation of lingual cortex Procedures for simultaneous horizontal bone augmentation
Defining Characteristics: 3 or 4 implants, interforaminal region							
Sufficient	Moderate	Low	Moderate	Moderate	Moderate	Advanced	Involvement of the mental foramina
Deficient, but allowing simultaneous or prior bone augmentation	Moderate	Low	High	High	High	Complex	Risk of mental nerve involvement Risk of perforation of lingual cortex Procedures for simultaneous or prior horizontal bone augmentation
Defining Characteristics: > 4 implants, extending distal to interforaminal region							
Sufficient both in vertical and horizontal dimensions	Moderate	Low	Moderate	Moderate	Moderate	Advanced	Involvement of the mental foramina
Deficient, but allowing simultaneous or prior bone augmentation	High	Low	High	High	High	Complex	Risk of mental nerve involvement Risk of perforation of lingual cortex Risk of inferior alveolar nerve involvement Procedures for simultaneous or prior horizontal bone augmentation
Defining Characteristics: 4 or more implants, immediate loading							
Sufficient	Moderate	Low	High	Moderate	Moderate	Complex	Coordination with restorative practitioners and laboratory technicians

Areas of Low Esthetic Risk		Case Type: Single Tooth Space					
Risk Assessment						Normative Classification	Notes/Adjunctive Procedures that may be required
Bone Volume	Anatomic Risk	Esthetic Risk	Complexity	Risk of Complications			
Defining Characteristics: One implant							
Sufficient	Low	Low	Low	Low	Low	Straight-forward	
Deficient horizontally allowing simultaneous augmentation	Low	Low	Moderate	Low	Low	Advanced	Procedures for simultaneous horizontal bone augmentation Low risk of complications for small defects, but risk may increase for larger defects Donor site morbidity
Deficient horizontally requiring prior grafting	Low	Low	High	Moderate	Moderate	Complex	Procedures for horizontal bone augmentation Involvement of the mental foramina in the mandible Donor site morbidity
Deficient vertically	High	Low	High	High	High	Complex	Procedures for vertical and/or horizontal bone augmentation Involvement of the mental foramina in the mandible Procedures for sinus floor

Areas of Low Esthetic Risk		Case Type: Short Edentulous Space					
Risk Assessment						Normative Classification	Notes/Adjunctive Procedures that may be required
Bone Volume	Anatomic Risk	Esthetic Risk	Complexity	Risk of Complications			
Defining Characteristics: two implants and up to 2 teeth replaced							
Sufficient	Low	Low	Low	Low	Low	Straight-forward	
Deficient horizontally allowing simultaneous grafting	Low	Low	Moderate	Moderate	Moderate	Advanced	Procedures for simultaneous horizontal bone augmentation Low risk of complications for small defects, but risk may increase for larger defects Donor site morbidity
Deficient horizontally requiring pre or grafting	Low	Low	High	Moderate	Moderate	Complex	Procedures for horizontal bone augmentation Involvement of the mental foramina in the mandible Donor site morbidity
Deficient vertically and/or horizontally	High	Low	High	High	High	Complex	Procedures for vertical and/or horizontal bone augmentation Involvement of the mental foramina in the mandible Procedures for sinus floor

Areas of Low Esthetic Risk		Case Type: Extended Edentulous Space					
Risk Assessment						Normative Classification	Notes/Adjunctive Procedures that may be required
Bone Volume	Anatomic Risk	Esthetic Risk	Complexity	Risk of Complications			
Defining Characteristics: More than 2 implants, span of more than 3 teeth							
Sufficient	Low	Low	Moderate	Low	Low	Straight-forward	None
Deficient horizontally allowing simultaneous grafting	Moderate	Low	Moderate	Moderate	Moderate	Advanced	Procedures for simultaneous horizontal bone augmentation Low risk of complications for small defects, but risk may increase for larger defects Involvement of the mental foramina in the mandible Donor site morbidity
Deficient horizontally requiring prior grafting	Moderate	Low	High	Moderate	Moderate	Complex	Procedures for horizontal bone augmentation Involvement of the mental foramina in the mandible Donor site morbidity
Deficient vertically with or without a horizontal defect	High	Low	High	High	High	Complex	Risk to adjacent teeth Procedures for vertical and/or horizontal bone augmentation Involvement of the mental foramina and/or inferior alveolar nerve in the mandible Procedures for sinus floor grafting Donor site morbidity

The SAC Classification in Implant Dentistry

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Areas of Low Esthetic Risk					Case Type: Single Tooth Space	
Risk Assessment					Normative Classification	Notes/Adjunctive Procedures that may be required
Bone Volume	Anatomic Risk	Esthetic Risk	Complexity	Risk of Complications		
Defining Characteristics: One implant						
Sufficient	Low	Low	Low	Low	Straight-forward	
Deficient horizontally						Procedures for simultaneous horizontal bone augmentation



Normative SAC classification + Modifier Considerations → SAC Classification

Areas of Low Esthetic Risk					Case Type: Short Edentulous Space	
Risk Assessment					Normative Classification	Notes/Adjunctive Procedures that may be required
Bone Volume	Anatomic Risk	Esthetic Risk	Complexity	Risk of Complications		
Defining Characteristics: Two implants and up to 3 teeth replaced						
Sufficient	Low	Low	Low	Low	Straight-forward	
Deficient						Procedures for simultaneous horizontal bone augmentation

Areas of Low Esthetic Risk					Case Type: Extended Edentulous Space	
Risk Assessment					Normative Classification	Notes/Adjunctive Procedures that may be required
Bone Volume	Anatomic Risk	Esthetic Risk	Complexity	Risk of Complications		
Defining Characteristics: More than 2 implants, span of more than 3 teeth						
Sufficient	Low	Low	Moderate	Low	Straight-forward	None
Deficient horizontally, allowing simultaneous grafting	Moderate	Low	Moderate	Moderate	Advanced	Procedures for simultaneous horizontal bone augmentation Low risk of complications for small defects, but risk may increase for larger defects Involvement of the mental foramina in the mandible Donor site morbidity
Deficient horizontally, requiring prior grafting	Moderate	Low	High	Moderate	Complex	Procedures for horizontal bone augmentation Involvement of the mental foramina in the mandible Donor site morbidity
Deficient vertically, with or without a horizontal defect	High	Low	High	High	Complex	Risk to adjacent teeth Procedures for vertical and/or horizontal bone augmentation Involvement of the mental foramen and inferior alveolar nerve in the mandible Procedures for sinus floor grafting Donor site morbidity

General Factors	Assessment	Notes
Medical contraindications	None	
Smoking habit	None	
Growth considerations	None	
Site Factors	Assessment	Notes
Bone volume	Adequate in width	Vertical deficiency in the first and second molar sites Sinus floor augmentation required
Anatomic risk	High	Involvement of the maxillary sinus
Esthetic risk	Moderate	Posterior edentulous space Upper premolar teeth visible in the patient's smile.
Complexity	High	A staged approach is required. Technical demands associated with the sinus augmentation procedure Implants may only be placed in the molar sites following a successful outcome of the initial sinus augmentation procedure.
Risk of complications	Moderate	Risk of perioperative and postoperative complications associated with the sinus floor augmentation procedure
Loading protocol	Early	
SAC Classification	Complex	

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Application of Surgical SAC classification: Single tooth space with sufficient bone



Non-Esthetic Zone



Straightforward

Esthetic Zone



Advanced

Application of Surgical SAC classification: Single tooth space with deficient vertical bone volume

Non-Esthetic Zone



Complex

Esthetic Zone



Consistent 5 clinical parameters

Complex

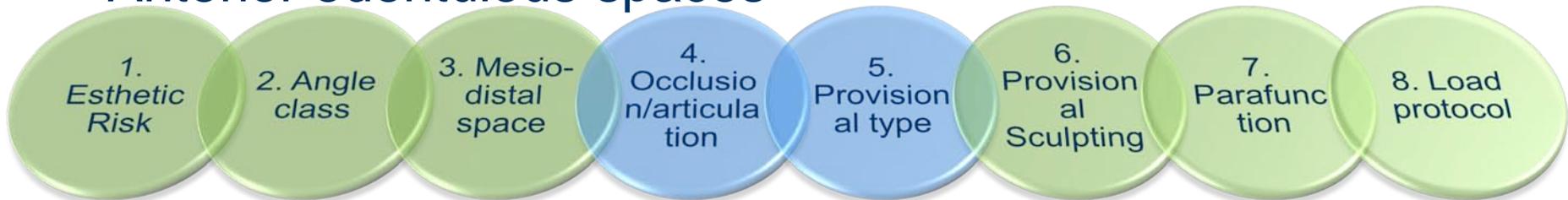
Application of the Restorative SAC classification



Anterior Single Teeth



Anterior edentulous spaces



Posterior Single Teeth



Posterior edentulous spaces



Clinical parameters depending on intraoral location and size

Application of the Restorative SAC classification

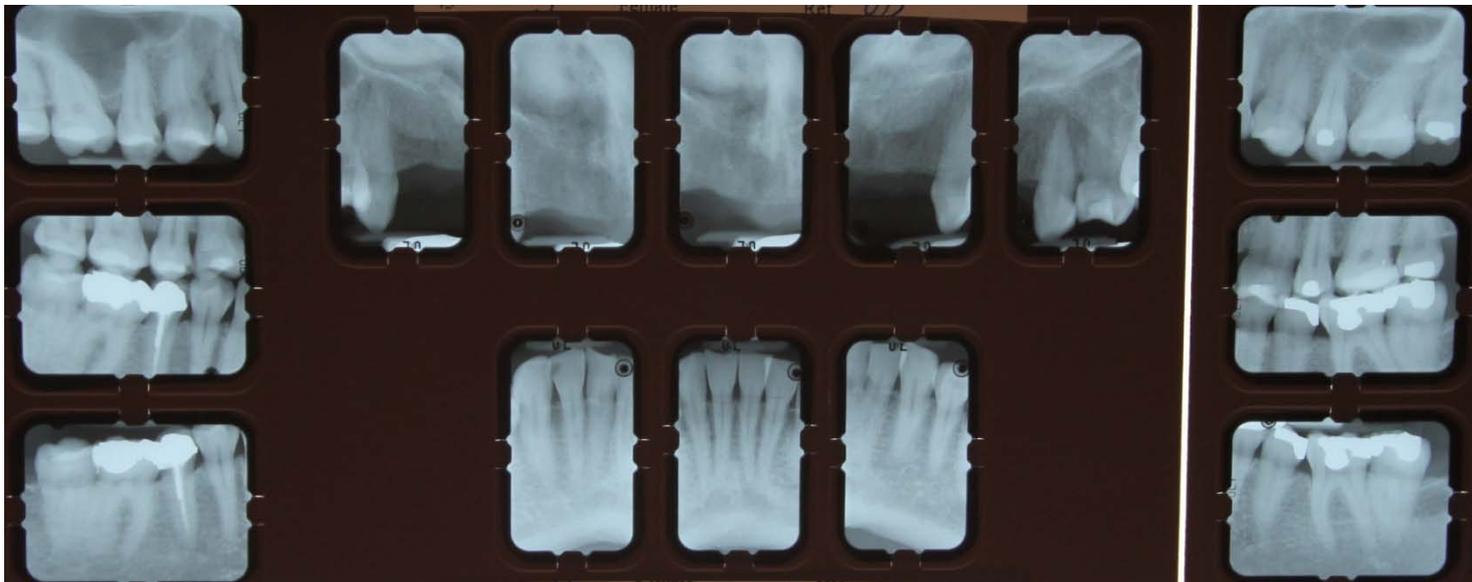


Edentulous – Fixed Restorations



Edentulous Maxilla – Removable	Notes	Straightforward	Advanced	Complex
Inter-arch distance (bar & clip retained)	Refers to the distance from the proposed implant restorative margin to the opposing occlusion.		> 10 mm	< 10 mm = not indicated
Inter-arch distance (Individual retentive elements)			> 8 mm	< 8 mm = not indicated
Loading protocol (bar & clip retained)			Early	Immediate (bar only)
Loading protocol (individual retentive elements)			Conventional/Early	
Esthetic risk	Refer for ERA (Treatment Guide 1)		Low	Moderate/high (unrealistic expectations)
Interim restorations during healing			Removable	
Occlusal para-function	Risk of complication is to the restoration, not to implant survival		Absent	Present
Occlusal scheme/issues (fixed opposing arch)			Anterior guidance	No anterior guidance
Occlusal Scheme/Issues (Complete denture in opposing arch)			Balanced	Balanced occlusion not possible

Edentulous Mandible – Removable	Notes	Straightforward	Advanced	Complex
Inter-arch distance (bar & clip retained)	Refers to the distance from proposed implant restorative margin to opposing occlusion.		> 10 mm	< 10 mm = not indicated
Inter-arch distance (individual retentive elements)		> 8 mm		< 8 mm = not indicated
Number of implants		2	3 or more	
Loading protocol		Conventional/early		Immediate
Esthetic risk	Refer for ERA (Treatment Guide 1)	Low	Moderate/high (unrealistic expectations)	
Interim restorations during healing		Removable		
Occlusal para-function	Risk of complication is to the restoration, not implant survival		Absent	Present
Occlusal scheme/issues (fixed opposing arch)			Anterior guidance	No anterior guidance
Occlusal scheme/issues (complete denture in opposing arch)			Balanced	Balanced occlusion not possible





Esthetic Risk Factor	Level of Risk		
	Low	Moderate	High
Medical status	Healthy, co-operative patient with an intact immune system.		Reduced immune system
Smoking habit	Non-smoker	Light smoker (< 10 cigs/day)	Heavy smoker (> 10 cigs/day)
Patient's esthetic expectations	Low	Medium	High
Lip line	Low	Medium	High
Gingival biotype	Low scalloped, thick	Medium scalloped, medium thick	High scalloped, thin
Shape of tooth crowns	Rectangular		Triangular
Infection at implant site	None	Chronic	Acute
Bone level at adjacent teeth	≤ 5 mm to contact point	5.5 to 6.5 mm to contact point	≥ 7 mm to contact point
Restorative status of neighboring teeth	Virgin		Restored
Width of edentulous span	1 tooth (≥ 7 mm)	1 tooth (≤ 7mm)	2 teeth or more
Soft tissue anatomy	Intact soft tissue		Soft tissue defects
Bone anatomy of alveolar crest	Alveolar crest without bone deficiency	Horizontal bone deficiency	Vertical bone deficiency

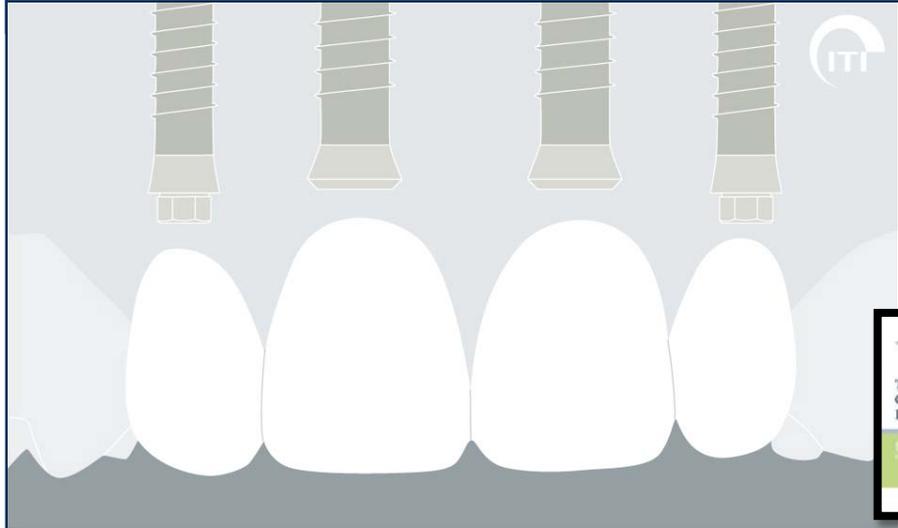
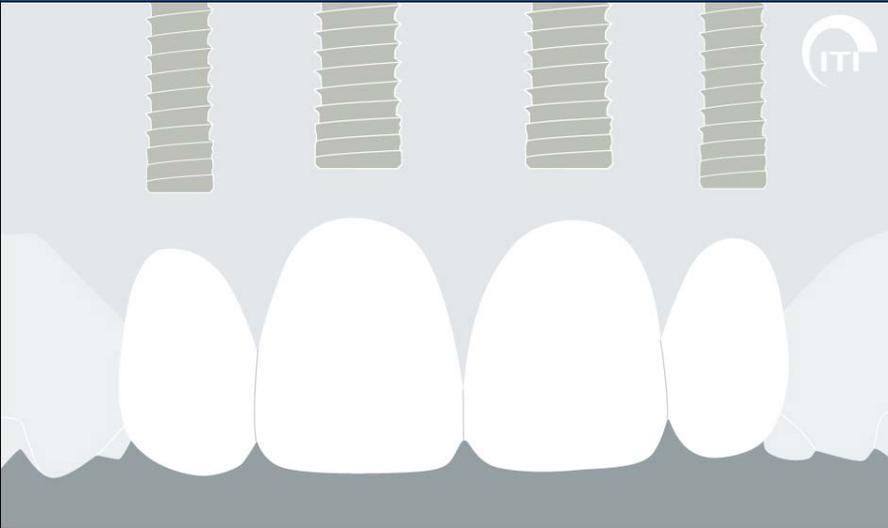
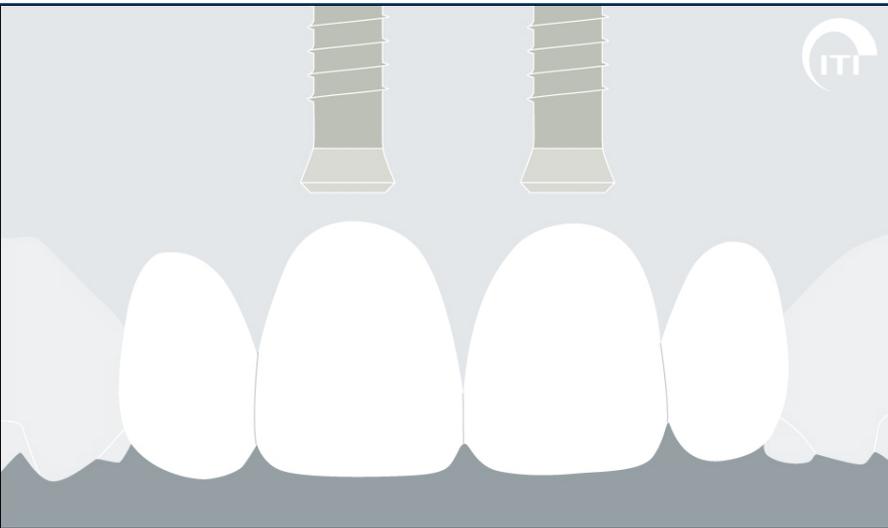


Issue	Degree of Difficulty		
	Low	Moderate	High
Oral Environment			
General Oral Health	No active disease		Active disease
Condition of adjacent teeth	Restored Teeth		Virgin teeth
Reason for tooth loss	Caries/Trauma		Periodontal Disease, or occlusal parafunction
Restorative Volume			
Inter-arch distance	Adequate for planned restoration.	Restricted space, but can be managed.	Adjunctive therapy will be necessary to gain sufficient space for planned restoration.
Mesio-distal space	Sufficient to fit replacements for missing teeth	Some reduction in size, or number of teeth will be necessary	Adjunctive therapy will be needed to achieve a satisfactory result.
Span of restoration	Single tooth	Extended edentulous space	Full arch
Volume and characteristics of the edentulous saddle	No prosthetic soft-tissue replacement will be necessary		Prosthetic replacement of soft tissue will be needed for esthetics or phonetics
Occlusion			
Occlusal Scheme	Anterior guidance		No guidance
Involvement in occlusion	Minimal involvement		Implant restoration is involved in guidance.
Occlusal para-function	Absent		Present
Provisional Restorations			
During implant healing	None required	Removable	Fixed
Implant supported provisionals needed	Not required.	Restorative margin <3mm apical to mucosal crest	Restorative margin >3mm apical to mucosal crest
Loading Protocol	Conventional or early loading		Immediate loading
Materials/Manufacture	Resin based materials ± metal reinforcement	Porcelain fused to metal.	
Maintenance Needs	Low	Moderate	High





General Factors	Assessment	Notes
Medical contraindications	None	
Smoking habit	None	
Growth considerations	None	
Site Factors	Assessment	Notes
Bone volume	Deficient	Horizontal bone augmentation in a staged approach required using autologous cortico-cancellous bone block
Anatomic risk	Low	
Esthetic risk	High	As determined by the ERA
Complexity	High	Immediate placement and flapless approach increases treatment complexity.
Risk of complications	High	Implant placement with staged procedures High risk of surgical complications with the bone graft, and donor site morbidity. Complications may significantly affect treatment outcomes
Loading protocol	Conventional or Early	
SAC Classification	Complex	



Assumptions – SAC Tool

The SAC Classification assumes that appropriate training, preparation and care are devoted to the planning and implementation of treatment plans. No classification can adequately address cases or outcomes that deviate significantly from the norm. In addition, it is assumed that clinicians will be practicing within the bounds of their clinical competence and abilities. Thus, within each classification, the following general and specific assumptions are implied:

General:

- Treatment will be provided in an appropriately equipped operatory with an appropriate aseptic technique.
- Adequate clinical and laboratory support is available.
- Recommended protocols are followed.

Patients:

- Patients' medical conditions are not compromised or are appropriately addressed.
- Patients have realistic expectations with respect to the outcomes of their treatment.

Specific:

- The type, dimensions and number of implants to be placed are appropriate for the site(s).
- The implants are correctly positioned and adequately spaced.
- Restorative materials that are used are appropriate to the task.

This SAC Assessment Tool provides normative feedback. In this context, “normative” relates to the classification that conforms to the norm, or standard, for a given clinical situation in implant dentistry and thus to the most likely classification of a case. The normative classification may alter as a result of modifying factors and/or complications.

<http://www.iti.org/var/external/sac-tool/default-1000.htm>



Assessment of
Surgical Cases

Assessment of
Restorative Cases

This tool is based on a book entitled "The SAC Classification in Implant Dentistry" jointly published by the ITI and the Quintessence Publishing Group. It comprises the proceedings of a consensus conference organized by the ITI in 2007 with the aim of providing normative guidelines for various types of restorative and surgical cases based on a system referred to as the SAC (Straightforward, Advanced and Complex) Classification system.

Please note that certain assumptions have been made in the establishment of this SAC Classification. To review them, click on "Assumptions" in the menu bar below.