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Original Article

Managing Treatment Interruption during Combined Periodontal, Orthodontic, and Implant Rehabilitation: An Original Framework for Biological Reassessment, Temporary Stabilization, and Coordinated Re-entry into Care

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ABSTRACT

Treatment interruption during combined periodontal, orthodontic, and implant rehabilitation is often treated as a scheduling problem, although its more important consequence may be the loss of confidence that the biological, mechanical, and restorative assumptions supporting the original treatment sequence remain valid. This article develops a non-empirical care-coordination framework for managing return to care after interruption in complex periodontal rehabilitation. The analysis distinguishes interruption from deterioration: elapsed time alone does not establish recurrent periodontal disease, orthodontic instability, loss of regenerative readiness, peri-implant pathology, or prosthetic failure. Instead, interruption can make previously documented states clinically stale by removing surveillance, maintenance, controlled force delivery, provisional management, or interdisciplinary handoffs. Re-entry therefore requires selective reassessment of the domains whose status could reasonably have changed, followed by temporary stabilization when immediate continuation would expose the patient to avoidable biological or mechanical risk. The proposed framework treats resumption as a conditional decision among continuation, modification, deferral, or redirection rather than automatic restoration of the former schedule. It also separates evidence-supported reassessment principles from the proposed coordination architecture. This approach is intended to preserve biological safety, treatment reversibility, interdisciplinary accountability, and patient-centered continuity without converting variable clinical evidence into unsupported universal timing thresholds.

Keywords: Treatment interruption, Periodontal rehabilitation, Orthodontic re-entry, Supportive periodontal care, Peri-implant maintenance, Interdisciplinary treatment

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Introduction

Periodontal rehabilitation is rarely reducible to a single endpoint or specialty when advanced attachment loss, tooth migration, missing teeth, restorative demands, and implant planning coexist. Contemporary periodontal classification recognizes that disease severity, complexity, and progression risk are multidimensional rather than adequately represented by a single historical diagnosis or isolated measurement [1]. The current classification of periodontitis likewise emphasizes that case definition depends on the distribution and character of attachment loss and associated clinical findings, rather than on one marker considered in isolation [2]. These distinctions become especially important when a treatment plan extends across months or years and must coordinate disease control with orthodontic tooth movement,

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regenerative procedures, tooth retention decisions, prosthetic rehabilitation, or implant therapy.

The European Federation of Periodontology guideline for stages I–III periodontitis organizes therapy as a stepwise process in which behavioral intervention, biofilm control, periodontal instrumentation, treatment of residual disease, and supportive periodontal care remain linked over time [3]. Stage IV disease adds another layer because restoration of function can require orthodontic correction, splinting, prosthodontic rehabilitation, implant therapy, or other interdisciplinary measures after periodontal control has been established [4]. Where implants are present or planned, prevention, diagnosis, treatment, and supportive care for peri-implant conditions add a biologically distinct surveillance requirement [5]. Evidence concerning combined periodontal and orthodontic treatment further indicates that favorable outcomes can be achieved in selected patients with severe disease, but the evidence base is conditioned by case selection, prior periodontal treatment, defect morphology, clinical monitoring, and the treatment protocols applied [6].

These features make interruption clinically different from ordinary delay. A missed appointment may be inconsequential in one phase yet materially important in another. An appliance can remain mechanically active while professional monitoring has stopped; periodontal inflammation can recur while an orthodontic sequence is paused; a provisional restoration can remain in service longer than intended; a previously acceptable implant or tooth prognosis can become outdated; or a patient may return after a change in self-care capacity, medication, disease control, prosthetic status, or willingness to continue the original plan. Conversely, an extended interruption does not by itself prove that any of these changes has occurred.

The central problem is therefore not simply how long treatment has been interrupted. It is whether interruption has invalidated one or more assumptions on which the next treatment step depended. This article addresses that problem by separating three questions that are often conflated: what functions of care were interrupted and what consequences are plausible; what biological and mechanical states must be reassessed on return; and what forms of temporary stabilization or coordinated resequencing are justified if the previous plan cannot safely be resumed unchanged. The proposed contribution is a care-coordination framework in which re-entry is based on renewed decision validity rather than automatic continuation of the abandoned schedule.

Sources and consequences of treatment interruption

Supportive care provides the clearest example of why interruption should not be defined only by calendar time. Maintenance after periodontal or implant treatment is not merely periodic cleaning; it is a longitudinal process through which plaque control, inflammatory findings, tissue changes, patient behavior, restorative accessibility, and emerging complications are repeatedly evaluated [7]. When supportive periodontal therapy is discontinued, the lost function is therefore broader than the missed procedure itself. A retrospective investigation of patients who discontinued supportive periodontal therapy found clinically relevant differences in periodontal status after discontinuation, supporting the concern that loss of structured follow-up can matter [8]. However, such evidence does not justify a universal duration beyond which deterioration should be assumed. Individual susceptibility, previous disease severity, residual pockets, home care, smoking, systemic factors, restorative design, and the duration and quality of prior periodontal control remain relevant.

The same distinction applies to implant care. Compliance with supportive therapy after peri-implantitis treatment is variable in clinical practice, and discontinuity can arise even after active disease has been treated [9]. The potential consequence is not that an implant automatically becomes diseased when follow-up is missed, but that clinical confirmation of peri-implant stability is no longer current. In a combined rehabilitation, that uncertainty matters because later restorative or orthodontic steps may depend on the continued health of tissues surrounding an implant or on the continued feasibility of an implant-based plan.

Longitudinal periodontal outcomes also show why interruption cannot be interpreted deterministically. Prospective observation during supportive periodontal care indicates that tooth loss is concentrated according to patient- and tooth-level characteristics rather than distributed uniformly across treated patients [10]. Stage and grade may modify the likelihood of retreatment and the cumulative burden of long-term care, reinforcing the principle that post-treatment trajectories differ according to initial and residual risk [11]. Very long-term follow-up of patients treated for stages III and IV periodontitis likewise demonstrates substantial heterogeneity in tooth retention over decades [12]. Thus, interruption creates uncertainty about current status, but the direction and magnitude of change cannot be inferred from the fact of interruption alone.

Orthodontic components generate a different class of continuity problem. Retention after active tooth movement is required because periodontal and dentoalveolar tissues continue to adapt and because relapse pressures do not disappear at appliance removal. Orthodontic retention therefore requires surveillance of appliance integrity, tooth position, periodontal response, and patient use where removable retention is involved [13]. During an interruption of active orthodontic therapy, additional questions arise: whether the appliance has remained passive or continued to deliver force, whether aligner wear has been inconsistent, whether brackets or wires have altered tooth position unexpectedly, whether anchorage relationships have changed, and whether tooth movement has occurred in a periodontal environment different from the one originally documented. These are mechanical and biological questions, not merely administrative ones.

Prosthetic care can also become clinically stale during prolonged multidisciplinary treatment. Long-term observations in patients with advanced periodontitis show that prosthetic rehabilitation can remain functional when embedded within sustained periodontal care, but such outcomes arise from maintained clinical systems rather than from prostheses operating independently of periodontal conditions [14]. An interruption may therefore alter the expected service period of a provisional restoration, change occlusal contacts after tooth movement, reduce cleansability, expose technical complications, or leave a definitive prosthetic decision based on root positions and tissue conditions that are no longer current.

The practical implication is that an interruption should first be characterized by the care function that was lost. Loss of supportive periodontal surveillance is not equivalent to interruption of active orthodontic force delivery; loss of implant maintenance is not equivalent to postponed implant placement; and an extended provisional phase is not equivalent to an untreated periodontal recurrence. The consequence map must therefore remain specific to the interrupted component, while also recognizing that one altered component can change the assumptions supporting another.

This distinction is summarized in **Table 1**. The table does not assign probabilities or treatment thresholds. Its purpose is to identify which previously documented states can become uncertain when continuity is lost and what type of clinical consequence should therefore be considered on return.

Table 1. Interruption Pathways and the Clinical States That Can Become Stale During Combined Periodontal, Orthodontic, and Implant Rehabilitation

Interrupted care function or treatment condition	What may no longer be current on return	Plausible clinical consequence requiring attention	What interruption alone does not establish	Immediate interpretive priority
Supportive periodontal surveillance	Inflammatory status, plaque control, residual-pocket behavior, tooth prognosis	Recurrent inflammation, renewed need for periodontal intervention, change in maintainability	Recurrent periodontitis or treatment failure	Re-establish current periodontal status
Active orthodontic monitoring	Appliance integrity, actual tooth position, anchorage relationships, periodontal response to movement	Unintended movement, loss of control, altered loading, instability	Periodontal damage caused by orthodontics	Determine present mechanics and tissue response
Orthodontic retention	Retainer integrity, tooth-position stability, patient adherence	Relapse or positional change that affects later rehabilitation	Clinically important relapse in every patient	Compare current and intended tooth positions
Peri-implant supportive care	Peri-implant inflammatory status, hygiene access, prosthetic condition	Missed detection of mucosal or bone-related changes	Peri-implantitis	Perform diagnosis before attributing pathology
Regenerative-to-orthodontic sequence	Healing status relevant to planned tooth movement	Changed suitability for the previously scheduled biomechanical step	Failure of regeneration or need for a fixed waiting period	Reassess tissue condition in relation to planned movement
Provisional restorative phase	Fit, cleansability, occlusion, technical integrity, relation to tooth movement	Biological or mechanical burden from an extended provisional state	Need for immediate definitive restoration	Determine whether the provisional condition remains acceptable

Planned implant placement	Ridge/root relationship, periodontal stability, restorative space, patient priorities	Previous implant timing or position may no longer be optimal	Implant placement is contraindicated	Reconfirm anatomical and interdisciplinary prerequisites
Multidisciplinary handoff	Responsibility, completed prerequisites, pending decisions, patient understanding	Duplicate, omitted, or prematurely resumed care	Negligence by a particular discipline	Reconstruct the shared treatment state

The table also clarifies why the next step after interruption is not simply to restart treatment. If the interrupted function was surveillance, the state requiring confirmation is biological; if active mechanics were interrupted, both position and loading assumptions may require revision; if an irreversible restorative or implant decision was pending, the relevant anatomical and prognostic assumptions must again be current. Duration remains clinically relevant because longer gaps can increase the opportunity for change, but duration should function as a reason to investigate rather than as a surrogate diagnosis.

Biological and mechanical reassessment after interruption

Return to care should begin by determining which state variables were essential to the abandoned treatment plan and whether those variables are still trustworthy. Conventional periodontal diagnosis remains grounded in clinical parameters that establish current inflammatory and structural status, including probing findings, bleeding, clinical attachment level, and radiographic interpretation where indicated [15]. Follow-up assessment is strongest when these findings are interpreted longitudinally, because monitoring is intended to detect change relative to a previous condition rather than merely to record an isolated value [16]. Consequently, a patient returning after interruption should not be classified as “stable” or “unstable” solely from the historic chart or from the length of the gap.

The same principle applies to prognosis. Tooth- and implant-related prognostic factors incorporate local anatomy, periodontal support, inflammatory status, restorative conditions, patient behavior, and systemic context, and prognosis can change as those factors change [17]. A tooth considered maintainable before interruption may remain maintainable; alternatively, recurrent inflammation, fracture, caries, altered mobility, unfavorable movement, or loss of patient capacity for maintenance may alter that judgment. Similarly, an implant previously incorporated into a rehabilitation plan may require renewed assessment of peri-implant tissue condition, prosthetic accessibility, and its role in the current rather than historical treatment sequence.

Diagnostic expansion should remain proportionate to evidentiary maturity. Contemporary and emerging periodontal diagnostic technologies may add information beyond traditional examination, but their value depends on validation, clinical interpretability, and whether they change a decision that actually needs to be made [18]. Re-entry should therefore not become an indiscriminate diagnostic exercise. The reassessment is selective: it should refresh the information whose obsolescence could change the safety or logic of the next planned intervention.

Orthodontic re-entry requires particular attention to the interaction between mechanics and periodontal support. Orthodontic treatment in patients with periodontitis is feasible when periodontal disease has been appropriately treated and monitoring is maintained, but reduced support changes the biological and mechanical context in which force is delivered [19]. Supportive periodontal care during active orthodontic therapy is consequently not an optional parallel activity in patients with a history of severe periodontitis; it is part of the environment within which continued movement is interpreted [20]. Following interruption, clinicians must determine whether the current periodontal state still supports the type of movement previously planned and whether the current appliance configuration is still producing the intended mechanical condition.

Timing evidence after regenerative surgery illustrates why elapsed time should not substitute for reassessment. In a multicenter randomized clinical trial involving patients with stage IV periodontitis and intrabony defects treated with regenerative periodontal surgery, orthodontic therapy initiated after four weeks was compared with initiation after six months [21]. The study showed that earlier movement within that defined protocol did not produce inferior periodontal outcomes relative to the delayed approach. Its relevance to interrupted care is not that four weeks constitutes a universal clearance threshold. Rather, the trial demonstrates that assumptions about “necessary

waiting time" require biological and clinical evidence and cannot be defended by chronology alone.

More recent human evidence reinforces the same interpretive boundary. Histologic evaluation of intrabony periodontal defects after guided tissue regeneration and subsequent orthodontic tooth movement provides direct information about tissue response in the studied configuration [22]. A related randomized clinical evaluation has also examined clinical and radiographic outcomes when orthodontic movement follows regenerative therapy under a defined protocol [23]. These studies strengthen the biological plausibility of combining regenerative and orthodontic treatment in selected circumstances, but they do not establish that every previously regenerated site remains suitable for movement after an unsupervised treatment gap. Defect morphology, current inflammation, attachment support, the direction and magnitude of intended movement, tooth position, and the actual post-interruption clinical state still matter.

For that reason, re-entry assessment should be organized around decision dependencies rather than a checklist applied uniformly to every patient. A patient whose interruption occurred before orthodontic movement may require confirmation that periodontal treatment endpoints remain acceptable before forces are introduced. A patient whose active orthodontic therapy continued mechanically despite loss of follow-up may require both periodontal reassessment and verification of tooth position, appliance integrity, anchorage, and unintended loading. A patient whose implant phase was postponed may need reassessment of root position, available space, soft-tissue condition, periodontal prognosis of adjacent teeth, and whether implant placement remains the least irreversible appropriate next step.

The same logic applies to sites treated regeneratively. Historical evidence that a defect responded favorably to therapy is relevant, but it does not eliminate the need to determine whether the current biological and mechanical situation still resembles the condition under which later treatment was originally planned. Re-entry therefore relies on a comparison among three states: the documented state when the prior plan was made, the current observed state, and the state required for the next proposed intervention. Where those states remain concordant, continuation may ultimately be reasonable. Where they diverge, stabilization or resequencing becomes necessary before definitive continuation.

Table 2 translates this reasoning into the specific reassessment domains relevant to combined rehabilitation. It deliberately avoids numerical clearance thresholds because the evidence does not support a single cross-patient value that can determine readiness after interruption.

Table 2. Return-to-Care Reassessment Domains Before Periodontal, Orthodontic, or Implant Treatment Is Resumed

Reassessment domain	Previously assumed condition that may have become stale	What must be re-established	Why it matters to the next treatment step	Interpretation boundary
Periodontal inflammatory state	Acceptable disease control before interdisciplinary progression	Current plaque-related inflammation, probing findings, bleeding pattern, suppuration where present, and relationship to prior records	Active inflammation can change the appropriateness of renewed orthodontic or restorative progression	No single isolated finding automatically determines whole-patient readiness
Periodontal structural support	Attachment and bone support compatible with planned mechanics or restoration	Current support, mobility, defect status and relevant radiographic findings	Changes in support alter prognosis and biomechanical interpretation	Historical attachment loss must not be confused with current active disease
Tooth prognosis and maintainability	Tooth remained sufficiently maintainable for the original plan	New structural, periodontal, endodontic, restorative or functional findings	A changed prognosis can alter anchorage, prosthetic design or preservation decisions	Prognosis is probabilistic and modifiable, not permanent
Orthodontic position and appliance state	Teeth, roots, anchorage and appliance configuration remained aligned with the treatment plan	Actual tooth position, device integrity, retained or unintended activation, fit and anchorage relationships	The former force system may no longer correspond to the current geometry	Programmed or intended movement must not be assumed to equal delivered movement

Regenerated periodontal site	Healing remained compatible with planned orthodontic progression	Current periodontal stability and the relationship between regenerated tissues and intended movement	Regenerative history affects biological interpretation of renewed loading	Published protocol timings are not universal restart thresholds
Peri-implant tissues	Implant remained clinically compatible with the broader rehabilitation	Current peri-implant tissue and prosthetic condition where implants are already present	Disease or technical change can alter the role of the implant in the plan	Treatment interruption alone does not diagnose peri-implant disease
Restorative/provisional condition	Interim restoration remained acceptable during the planned treatment interval	Fit, cleansability, occlusion, technical integrity and interaction with current tooth position	Extended provisional use can influence biological and mechanical conditions	Extended duration alone does not establish failure
Implant-planning prerequisites	Root position, space, ridge conditions and adjacent-tooth prognosis remained appropriate	Current anatomical and restorative prerequisites and relation to the revised treatment sequence	Implant placement is relatively irreversible and may close later options	A previously planned implant should not be placed merely because it was already scheduled
Patient-level treatment capacity	Self-care, attendance ability, preferences and commitment remained compatible with the plan	Current ability and willingness to perform required maintenance and complete the revised sequence	Biological success depends partly on sustainable long-term care	Patient preference must be integrated without replacing clinical safety assessment
Interdisciplinary decision state	Each discipline shared the same understanding of completed and pending care	Updated responsibility, prerequisites and unresolved decisions	Prevents treatment resumption on contradictory specialty assumptions	Reassessment is incomplete if biological data are current but responsibility is not

The purpose of this reassessment is not to create a new comprehensive diagnosis every time an appointment is missed. It is to identify whether the information supporting the next irreversible or biologically consequential step is still current enough to justify that step. The greater the dependence of the next intervention on potentially altered tissue, mechanical, or restorative conditions, the stronger the need for renewed verification.

This approach also protects against the opposite error: unnecessary retreatment caused by assuming that interruption itself represents failure. A stable periodontium does not become unstable by definition because supportive care was delayed; a regenerated defect does not lose its biological value simply because orthodontic treatment was interrupted; an implant does not become diseased merely because follow-up was missed; and an appliance does not necessarily become harmful because monitoring was delayed. The appropriate response is therefore conditional. Evidence of change should modify the plan; absence of clinically relevant change may support progression; uncertainty that materially affects safety should lead to temporary containment until the uncertainty is resolved.

The next stage of the framework concerns that intermediate state: how to protect periodontal, orthodontic, implant, and prosthetic conditions when immediate continuation is not yet defensible, without mistaking temporary stabilization for completion of definitive treatment.

Temporary stabilization and risk containment

When reassessment shows that immediate continuation is not yet defensible, the next task is not necessarily definitive retreatment. It is to prevent avoidable biological or mechanical deterioration while the treatment sequence is reconstructed. Supportive periodontal care can restore professional biofilm control and permit renewed observation of inflammatory findings, although no single instrumentation method should be treated as universally necessary for this purpose [24]. Temporary stabilization is therefore an objective rather than a fixed procedure: control active inflammation where present, remove clearly harmful mechanical conditions, protect maintainable teeth and implants, and preserve future treatment options while uncertainty is resolved.

Implant-related interruption requires the same discipline. Peri-implantitis has defined biological and diagnostic features and should be managed through diagnosis and stepwise treatment rather than inferred from nonattendance alone [25]. Prospective observations during supportive periodontal care also demonstrate that peri-implant conditions can remain

stable over time in appropriately monitored patients [26]. Accordingly, interruption history should trigger examination when relevant, not a presumption of disease.

Mechanical containment may likewise be required when an appliance, provisional restoration, occlusal relationship, or tooth position no longer corresponds to the assumptions of the prior plan. The least irreversible action that protects tissues and preserves later options is generally preferable while decisive information remains missing. Temporary stabilization must therefore end when it has achieved its purpose; it should not quietly become an indefinite substitute for definitive care.

The transition from stabilization to re-entry also requires explicit responsibility. **Table 3** distinguishes the clinical questions that must be resolved before each discipline resumes a consequential intervention.

Table 3. Interdisciplinary Responsibilities During Stabilization and Transfer Back into Active Rehabilitation

Re-entry question	Primary responsibility to be explicitly assigned	Required confirmation before progression	Reason coordination matters	Unsafe assumption to avoid
Is periodontal control still adequate for the planned next phase?	Periodontal clinician or appropriately designated treating clinician	Current inflammatory and structural periodontal status	Orthodontic, restorative, and implant decisions may depend on periodontal stability	Previous clearance remains valid indefinitely
Can orthodontic forces be resumed as previously planned?	Orthodontic clinician in coordination with periodontal care	Current tooth position, appliance state, anchorage, periodontal support, and intended movement	The former force system may no longer match current geometry or tissue support	Restarting the former sequence is mechanically equivalent to uninterrupted care
Does a regenerated site remain compatible with planned movement?	Periodontal and orthodontic clinicians jointly	Current clinical stability and movement-specific biological context	Regenerative history and current loading must be interpreted together	A calendar interval alone proves readiness
Are existing implants suitable for continued use in the revised plan?	Implant/restorative and periodontal clinicians	Current peri-implant and prosthetic condition	Implant health and restorative function influence later commitments	Missed maintenance equals peri-implant disease
Should planned implant placement still proceed?	Restorative/implant team with periodontal and orthodontic input	Current space, root position, ridge conditions, prognosis of adjacent teeth, and restorative need	Implant placement can close options that orthodontic or tooth-preserving treatment might retain	A previously scheduled implant remains automatically indicated
Can provisional restorations or retainers remain in service?	Relevant restorative or orthodontic clinician	Integrity, fit, hygiene access, occlusion, and interaction with current treatment state	Extended interim use can affect biological or mechanical conditions	“Temporary” devices remain harmless regardless of duration or condition
Has the patient accepted the revised sequence and maintenance burden?	Coordinating clinician with the patient and involved disciplines	Updated understanding, preferences, feasibility, and responsibilities	Re-entry can fail if the revised plan is clinically sound but practically unsustainable	Prior consent automatically covers materially changed circumstances

The relationships developed across the first three analytical sections are consolidated in **Figure 1**. The figure treats interruption as a disturbance of previously documented states rather than as a direct biological event and distinguishes evidence-supported clinical changes from the proposed inference that changed states may invalidate a former treatment sequence.

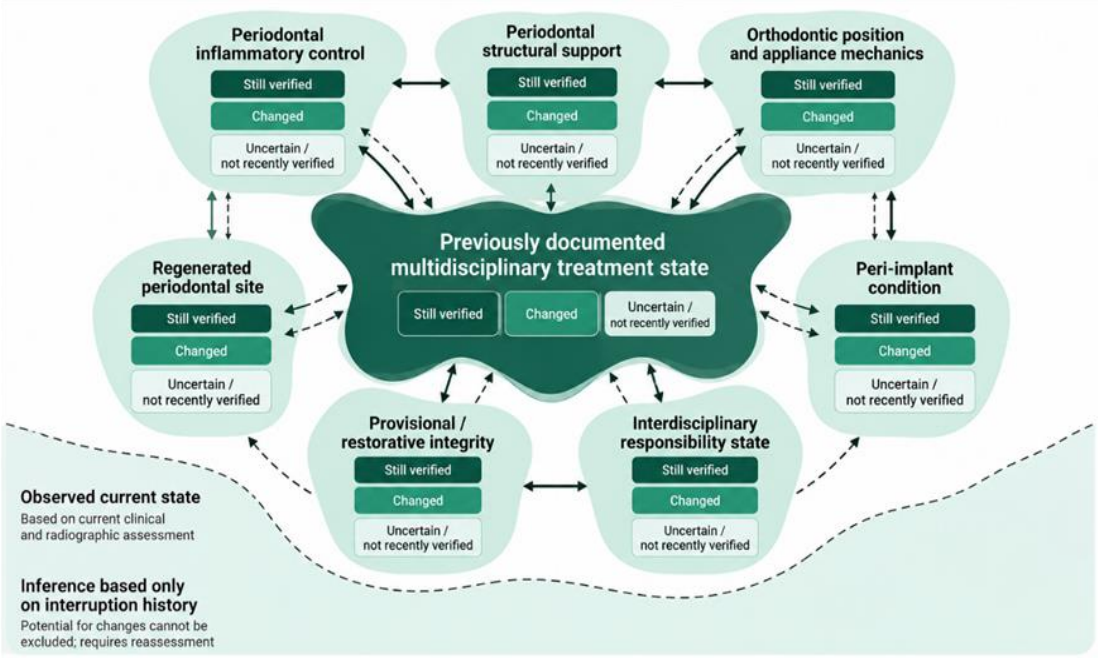


Figure 1. What Can Change While Combined Rehabilitation Is Interrupted: Biological, Mechanical, and Coordination State Transitions

A coordinated re-entry framework

Re-entry begins only after the clinically relevant state has been refreshed and immediate risks have been contained. Evidence integrating regenerative periodontal surgery and orthodontic treatment supports coordinated sequencing rather than isolated specialty decisions [27]. Likewise, outcomes after guideline-based periodontal treatment show that advancement through care can be assessed against achieved treatment endpoints rather than presumed from completion of a calendar interval [28]. This article, therefore defines re-entry as restoration of decision validity: the team must determine whether the assumptions supporting the next intervention remain sufficiently current to justify it.

Four outcomes are possible. The previous plan may be resumed when the required biological, mechanical, restorative, and patient conditions remain compatible with it. It may be modified when the overall goal remains appropriate but the means or sequence need adjustment. It may be deferred when unresolved inflammation, mechanical instability, diagnostic uncertainty, or patient circumstances make progression premature. Finally, it may be redirected when new information materially changes tooth prognosis, implant indication, restorative feasibility, or patient priorities.

Irreversible commitments deserve particular caution. Evidence comparing tooth- and implant-supported rehabilitation in stage IV periodontitis remains heterogeneous and does not justify a universal preference for one pathway [29]. Evidence for tooth-supported prostheses is also predominantly observational and context dependent [30]. A treatment interruption therefore creates a reason to reconfirm, rather than merely execute, any pending decision that substantially closes later options.

Figure 2 expresses the proposed coordination logic. It is intentionally not a score, algorithm, or validated clinical decision rule.

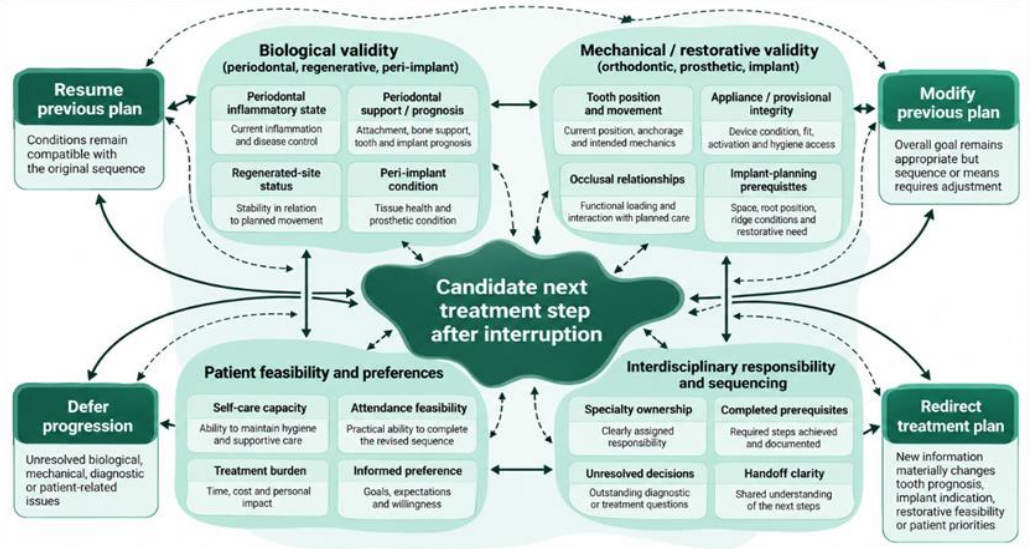


Figure 2. Re-entry as a Conditional Reconstruction of Treatment Validity

Implementation challenges, patient-centered considerations, and limitations

Re-entry can fail even when its biological logic is sound. Patient-reported outcomes and experiences are relevant because treatment burden, expectations, symptoms, function, and acceptability influence whether a revised sequence is sustainable [31]. These considerations should inform shared decisions without replacing biological or mechanical safety requirements.

Interruption may also arise from barriers extending beyond motivation. Qualitative work in periodontal care identifies capability, opportunity, and motivational barriers that can interfere with adherence [32]. A revised plan that ignores the reason continuity failed may reproduce the same interruption. Scheduling, transportation, cost, competing illness, self-care demands, communication, and fragmented responsibility can therefore be clinically relevant implementation variables.

Economic and access conditions further shape whether prevention and long-term periodontal management are feasible [33]. The proposed framework cannot eliminate these structural constraints. Nor has the framework itself been prospectively validated as a clinical decision instrument. Its value is presently analytical: it organizes existing evidence so that clinicians distinguish observed biological change from inferred risk, temporary containment from definitive treatment, and an old treatment schedule from a currently defensible treatment plan.

Conclusion

Treatment interruption during combined periodontal, orthodontic, and implant rehabilitation should not be interpreted as biological failure or managed by automatic restoration of the former schedule. Its clinical significance depends on which functions of care were lost, which biological or mechanical states could have changed, and whether the assumptions supporting the next intervention remain valid.

A defensible return to care therefore requires targeted reassessment, temporary stabilization when necessary, explicit redistribution of interdisciplinary responsibility, and conditional resequencing. The prior plan may be resumed, modified, deferred, or redirected, but those outcomes should follow from the current patient state rather than from elapsed time alone. This framework provides a structured basis for that reasoning while remaining intentionally non-numerical, evidence-bounded, and open to prospective validation.

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