

# ENDOCRINOLOGY CONSULT IN THE PERIOPERATIVE REHABILITATION PERIOD

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**Abstract** Perioperative rehabilitation is a crucial phase in patient recovery that often involves multidisciplinary care. Endocrine disorders such as diabetes, obesity, sarcopenia, adrenal insufficiency, thyroid dysfunction, and disorders of bone metabolism can significantly affect perioperative outcomes. Timely consultations with endocrinologists during this period allow for effective patient risk assessment, optimization of metabolic control, and tailored rehabilitation planning. This review discusses the role of endocrinology in perioperative rehabilitation, focusing on common endocrine issues, their implications, and recommended management strategies. **Introduction** The perioperative period consists of preoperative preparation, intraoperative care, and postoperative recovery, with rehabilitation being crucial for improving outcomes (1). Endocrine disorders are common among surgical patients and can complicate recovery. Endocrinologists are vital for managing metabolic and hormonal imbalances that may hinder recovery.

**Diabetes Mellitus and Glycemic Control** Diabetes is prevalent among surgical patients, and hyperglycemia can lead to poor wound healing, infections, and prolonged hospital stays, while aggressive glucose control may induce hypoglycemia. Endocrinology consultations help establish individual glycemic targets and optimize insulin regimens, especially during recovery transitions. The use of new technologies can help in individualized therapy (2). **Obesity and Sarcopenia** Obesity increases the risk of surgical complications, and collaboration with endocrinologists is essential for metabolic evaluation and nutritional planning. Sarcopenia affects rehabilitation, particularly in the elderly and those with chronic illnesses (3). Endocrinologists can evaluate contributing factors for targeted interventions, especially in the case of sarcopenic obesity.

**Thyroid Dysfunction and Surgical Recovery** Both hypothyroidism and hyperthyroidism can complicate recovery, leading to delayed wound healing or cardiovascular risks. Managing thyroid function before surgery is ideal, but addressing any dysfunction during the perioperative period is crucial (4). **Adrenal Insufficiency and Steroid Replacement** Adrenal insufficiency poses serious risks due to impaired stress response. Patients with this condition or chronic steroid users often require stress-dose corticosteroids during surgery. Endocrinologists ensure proper steroid identification and dosing while monitoring for complications (5). **Pituitary Disorders** Patients with pituitary disorders may face complex hormonal imbalances that require careful management, especially during surgery or stress. Prompt evaluation and treatment adjustments from endocrinologists are necessary (6). **Calcium Homeostasis and Bone Health** Postoperative hypocalcemia can hinder rehabilitation, especially after neck surgeries. Endocrinologists are vital for managing calcium metabolism and electrolyte stability during recovery (7). **Conclusion** Incorporating endocrinology into perioperative care enhances outcomes

by managing hormonal and metabolic issues. Early consultation allows for tailored treatment plans, preventing complications and speeding recovery. Interdisciplinary collaboration is essential for achieving optimal results.

**Keywords:** Perioperative period, Outcomes, Endocrine disorders, Consult

## References

1. Santek N, Langer S, Kirac I, Velemir Vrdoljak D, Tometic G, Musteric G, Mayer L, Cigrovski Berkovic M. Difference Between Walking Parameters During 6 Min Walk Test Before and After Abdominal Surgery in Colorectal Cancer Patients. *Cancers*. 2025; 17(11):1782.
2. Crowley K, Scanail PÓ, Hermanides J, Buggy DJ. Current practice in the perioperative management of patients with diabetes mellitus: a narrative review. *Br J Anaesth*. 2023 Aug;131(2):242-252.
3. Cigrovski Berkovic M, Bilic-Curcic I, Mrzljak A, Canecki Varzic S, Cigrovski V. Prehabilitation of overweight and obese patients with dysglycemia awaiting bariatric surgery: Predicting the success of obesity treatment. *World J Diabetes*. 2022 Dec 15;13(12):1096-1105.
4. Palace MR. Perioperative Management of Thyroid Dysfunction. *Health Serv Insights*. 2017 Feb 20;10:1178632916689677.
5. Woodcock T, Barker P, Daniel S, Fletcher S, Wass JAH, Tomlinson JW, Misra U, Dattani M, Arlt W, Vercueil A. Guidelines for the management of glucocorticoids during the peri-operative period for patients with adrenal insufficiency: Guidelines from the Association of Anaesthetists, the Royal College of Physicians and the Society for Endocrinology UK. *Anaesthesia*. 2020 May;75(5):654-663.
6. Prete A, Corsello SM, Salvatori R. Current best practice in the management of patients after pituitary surgery. *Therapeutic Advances in Endocrinology and Metabolism*. 2017;8(3):33-48.
7. Himes CP, Ganesh R, Wight EC, Simha V, Liebow M. Perioperative Evaluation and Management of Endocrine Disorders. *Mayo Clin Proc*. 2020 Dec;95(12):2760-2774.