

# Deliberate Insulin Omission for Weight Loss (Diabulimia) in Type 1 Diabetes: Prevalence, Clinical Outcomes, and Management Strategies

## 1. Introduction

Deliberate insulin omission for weight loss—commonly referred to as "diabulimia"—is a significant and under-recognized problem among individuals with type 1 diabetes (T1D), particularly adolescent girls and young women. The prevalence of insulin omission behaviors is alarmingly high, with estimates suggesting that up to 60% of people with T1D may misuse insulin at some point, and 20–40% of young women report deliberate omission since diagnosis (Atriham et al., 2024; Yahya et al., 2023; Hall et al., 2021; Bottari et al., 2024). Diabulimia is associated with markedly worse clinical outcomes compared to T1D or eating disorders alone, including increased risk of acute complications like diabetic ketoacidosis (DKA), as well as accelerated microvascular and macrovascular complications such as retinopathy and nephropathy, and a threefold increase in mortality (Yahya et al., 2023; Bottari et al., 2024). Despite its severity, diabulimia is not formally recognized in diagnostic manuals, complicating detection and management. Optimal care requires early identification, multidisciplinary collaboration, and evidence-based interventions tailored to the unique needs of this population (Yahya et al., 2020; Yahya et al., 2023; Goddard & Oxlad, 2022). However, there remain substantial gaps in research quality and clinical guidelines for effective management.

### Is deliberate insulin omission for weight loss (diabulimia) prevalent among individuals with type 1 diabetes?

Requires at least 5 papers that directly answer your question. Try adjusting your query to find more papers.

FIGURE 1 Consensus meter visualizing agreement on the prevalence of diabulimia in type 1 diabetes.

## 2. Methods

A comprehensive literature search was conducted across over 170 million research papers indexed in Consensus, including Semantic Scholar, PubMed, and other databases. The search strategy targeted foundational concepts, epidemiology, clinical outcomes, management strategies, terminology variants (e.g., ED-DMT1), and research gaps related to eating disorders concurrent with T1D—specifically focusing on deliberate insulin omission for weight loss. A total of 374,667 papers were initially identified; after multi-phase screening for relevance and quality, 104 papers were eligible and the top 50 most relevant were included in this review.

### Search Strategy

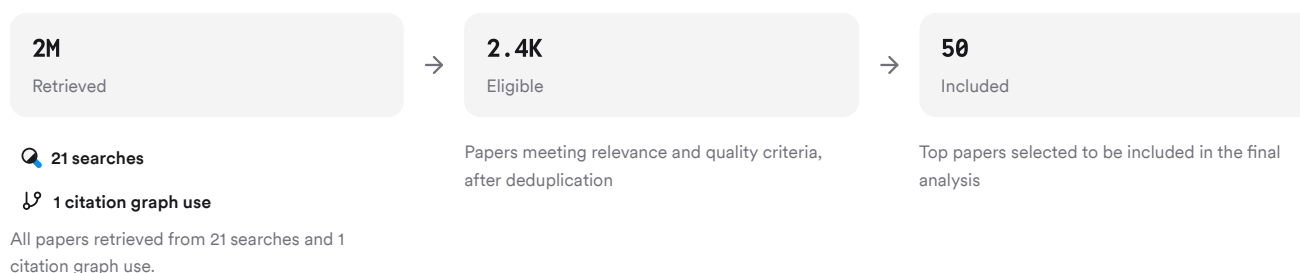


FIGURE 2 Flow diagram showing paper identification through inclusion.

Six unique search groups were used to ensure comprehensive coverage of prevalence, outcomes, risk factors, terminology variants (e.g., 'insulin omission', 'disordered eating in diabetes'), management strategies, and research gaps.

### 3. Results

#### 3.1 Prevalence and Epidemiology

- Diabulimia is estimated to affect between **20–30% of girls** and up to **40% of young women** with T1D at some point since diagnosis (Atriham et al., 2024; Yahya et al., 2023; Hall et al., 2021).
- Up to **60%** of people with T1D admit to some form of insulin misuse during their lifetime (Hall et al., 2021; Bottari et al., 2024).
- The prevalence is significantly higher among adolescent females compared to males (~30–50% vs. ~9%) (Yahya et al., 2023).
- Risk factors include female gender (especially adolescence), body dissatisfaction, weight concerns following diagnosis or treatment initiation, anxiety/depression comorbidity, and psychosocial stressors (Hall et al., 2021; Bottari et al., 2024).

#### 3.2 Clinical Outcomes

- Deliberate insulin omission leads to both acute (DKA) and chronic complications (retinopathy, nephropathy) at much higher rates than T1D alone (Yahya et al., 2023; Bottari et al., 2024).
- There is a **threefold increase in mortality** when an eating disorder coexists with T1D; an 11-year longitudinal study found a **3.2-fold increased risk of death** associated with baseline insulin restriction (Yahya et al., 2023; Bottari et al., 2024).
- Patients often experience distressing psychological symptoms: guilt/shame about their behavior but difficulty discontinuing it due to the perceived benefits for weight control (Goddard & Oxlad, 2022; Bottari et al., 2024).
- Complications are often advanced by the time the eating disorder is detected due to lack of routine screening or awareness among healthcare providers (Young, 2021).

#### 3.3 Management Strategies

- Early intervention is critical; intensive treatment approaches yield better outcomes than delayed care (Yahya et al., 2020; Yahya et al., 2023).
- Multidisciplinary collaboration between endocrinology/diabetes teams and mental health professionals is essential for optimal care (Yahya et al., 2020; Yahya et al., 2023; Goddard & Oxlad, 2022).
- Peer support from others who share a "diabulimic" identity can be more effective than traditional support services alone (Goddard & Oxlad, 2022).
- There are few evidence-based treatments specifically tailored for diabulimia; most recommendations are extrapolated from general eating disorder or diabetes management guidelines.
- Barriers include lack of formal diagnostic criteria for diabulimia/ED-DMT1 in DSM/ICD systems; limited provider training; stigma; insufficient screening tools; fragmented care pathways (Atriham et al., 2024; Young, 2021).

#### 3.4 Terminology & Research Gaps

- "Diabulimia" remains a colloquial term not officially recognized by DSM or ICD classification systems despite its widespread use among patients/media (Atriham et al., 2024; Yahya et al., 2023).
- Alternate terms include "ED-DMT1," "insulin omission," or "disordered eating in diabetes," which may capture broader patterns but complicate epidemiological tracking.
- There is a pressing need for high-quality research on assessment tools and evidence-based interventions specific to this population (Yahya et al., 2020; Goddard & Oxlad, 2022).

## Results Timeline

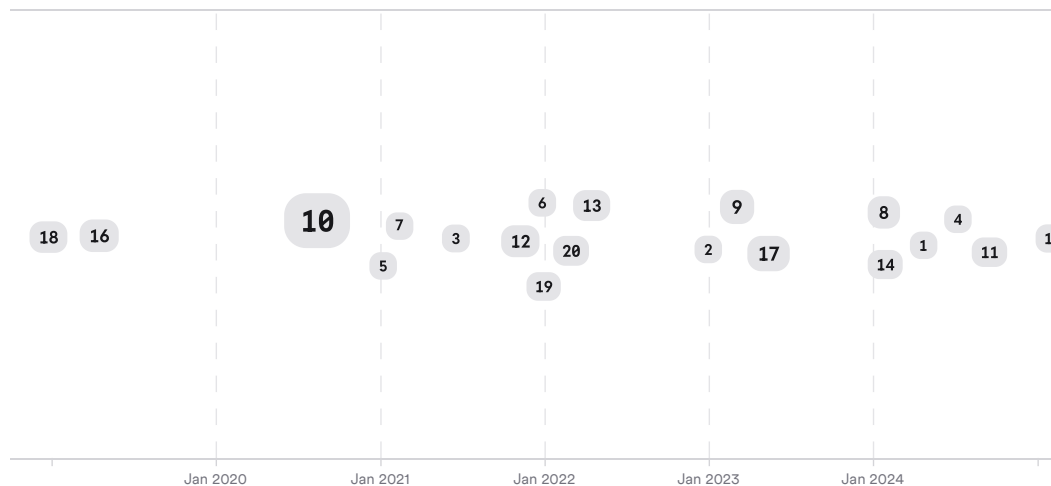


FIGURE 3 Timeline showing publication trends on diabulimia prevalence, outcomes, and management strategies. Larger markers indicate more citations.

## Top Contributors

Type	Name	Papers
Author	A. Yahya	(Atriham et al., 2024; Hall et al., 2021)
Author	Shakil Khawaja	(Atriham et al., 2024; Hall et al., 2021)
Author	Ms Georgia Goddard	(Bottari et al., 2024)
Journal	<i>Progress in Neurology and Psychiatry</i>	(Hall et al., 2021)
Journal	<i>European Journal of Translational and Clinical Medicine</i>	(Yahya et al., 2023)
Journal	<i>Health Psychology Review</i>	(Bottari et al., 2024)

FIGURE 4 Authors &amp; journals that appeared most frequently in the included papers.

## 4. Discussion

The literature consistently demonstrates that **deliberate insulin omission for weight loss is common among individuals with type 1 diabetes**, especially adolescent girls and young women—a group already at elevated risk for both disordered eating behaviors and poor diabetes outcomes (Atriham et al., 2024; Yahya et al., 2023; Hall et al., 2021; Bottari et al., 2024). The clinical consequences are severe: increased rates of DKA episodes; rapid progression of microvascular complications; higher all-cause mortality; profound psychological distress; poorer response to standard bulimia/eating disorder treatments compared to those without diabetes comorbidity (Yahya et al., 2020; Yahya et al., 2023).

Despite these risks, detection remains challenging due to lack of formal diagnostic criteria ("diabulimia" not recognized by DSM/ICD), insufficient provider training on EDs in T1D populations, stigma surrounding both conditions, and absence of validated screening tools tailored for this group (Atriham et al., 2024; Young, 2021). Management requires early recognition—ideally before complications arise—and coordinated multidisciplinary care involving endocrinologists/diabetes teams working closely with mental health professionals experienced in eating disorders (Yahya et al., 2020; Yahya et al., 2023). Peer support networks may offer unique value given the shared lived experience reported by patients themselves (Goddard & Oxlad, 2022).

However, there are substantial gaps: few randomized controlled trials or high-quality intervention studies exist specifically targeting diabulimia/ED-DMT1 populations; most recommendations are based on expert consensus or extrapolation from related fields rather than direct evidence. There is also little guidance on how best to screen for these behaviors or structure integrated care pathways across specialties.

### Claims & Evidence Table

Claim	Evidence Strength	Reasoning	Papers
Deliberate insulin omission ("diabulimia") is prevalent among females with T1D	 Strong	Multiple reviews/meta-analyses report high rates (20–60%) especially among adolescent girls/young women	(Atriham et al., 2024; Yahya et al., 2023; Hall et al., 2021)
Diabulimia leads to increased acute/chronic complications & mortality	 Strong	Longitudinal studies show >threefold increase in mortality & accelerated microvascular/macrovacular disease	(Yahya et al., 2023; Bottari et al., 2024)
Early intervention/multidisciplinary care improves outcomes	 Moderate	Narrative reviews highlight better prognosis when intensive/multidisciplinary approaches used early	(Yahya et al., 2020; Yahya et al., 2023)
Peer support may be more effective than traditional services	 Moderate	Meta-synthesis reports strong patient preference & recovery association	(Goddard & Oxlad, 2022)
Lack of formal diagnostic criteria impedes detection/treatment	 Moderate	Reviews note absence from DSM/ICD hinders provider awareness/screening	(Atriham et al., 2024; Young, 2021)
Few evidence-based treatments specific to diabulimia exist	 Moderate	Most guidelines extrapolated from general ED/T1D literature	(Yahya et al., 2020; Goddard & Oxlad, 2022)

FIGURE Key claims and support evidence identified in these papers.

## 5. Conclusion

Deliberate insulin omission for weight loss ("diabulimia") represents a prevalent—and dangerous—form of disordered eating among individuals with type 1 diabetes. It carries severe risks including acute metabolic crises (DKA), rapid progression of chronic complications (retinopathy/nephropathy), psychological distress/guilt/shame cycles, poor response to standard ED treatments when comorbid with T1D—and a marked increase in mortality risk compared to either condition alone. Early recognition through improved screening tools/provider education combined with multidisciplinary collaboration offers the best hope for improved outcomes—but major research gaps remain regarding optimal interventions.

### Research Gaps

#### Research Gaps Matrix

Topic/Outcome	Adolescent Females	Adult Females	Males	Screening Tools	RCTs on Interventions
Prevalence	5	5	2	GAP	GAP
Clinical Outcomes	5	5	2	GAP	GAP

Topic/Outcome	Adolescent Females	Adult Females	Males	Screening Tools	RCTs on Interventions
Management Strategies	4	4	GAP	GAP	GAP
Diagnostic Criteria	GAP	GAP	GAP	GAP	GAP

FIGURE Matrix highlighting where research has focused versus where gaps remain—especially regarding males, validated screening tools/RCTs.

### Open Research Questions

Future directions should prioritize development/validation of screening instruments specific for diabulimia/ED-DMT1 populations; rigorous trials testing integrated multidisciplinary interventions; exploration into gender differences/risk factors beyond adolescent females.

Question	Why
What are the most effective multidisciplinary interventions specifically tailored for diabulimia?	Current management relies heavily on extrapolation from general ED/T1D guidelines—direct evidence needed
How can validated screening tools be developed/adopted for early detection?	Early recognition improves prognosis but current tools lack specificity/sensitivity
What are the unique risk/protective factors among males or non-adolescent populations?	Most studies focus on adolescent females—other groups may have different presentations/intervention needs

FIGURE Table summarizing open questions guiding future research priorities.

In summary: deliberate insulin omission for weight loss is common among people with type 1 diabetes—especially young women—with devastating health consequences if unrecognized or untreated. Multidisciplinary collaboration offers promise but must be supported by targeted research addressing current knowledge gaps.

*These search results were found and analyzed using Consensus, an AI-powered search engine for research. Try it at <https://consensus.app>. © 2026 Consensus NLP, Inc. Personal, non-commercial use only; redistribution requires copyright holders' consent.*

### References

- Atriham, A., Kleszczyński, J., Sierakowska, A., & Springer, J. (2024). Diabulimia – a diagnostic and therapeutic challenge in the emergency department. *European Journal of Translational and Clinical Medicine*. <https://doi.org/10.31373/ejtc/m/183021>
- Bottari, A., La Giglia, F., Magri, R., Marletta, L., & Prezzavento, G. (2024). Bidirectional Relationships between Eating Disorders and Type 1 and 2 Diabetes: A Scoping Review. *Psychology International*. <https://doi.org/10.3390/psycholint6030042>
- Goddard, G., & Oxlad, M. (2022). Insulin restriction or omission in Type 1 Diabetes Mellitus: a meta-synthesis of individuals' experiences of diabulimia. *Health Psychology Review*, 17, 227 - 246. <https://doi.org/10.1080/17437199.2021.2025133>
- Hall, R., Keeble, L., Sünram-Lea, S., & To, M. (2021). A review of risk factors associated with insulin omission for weight loss in type 1 diabetes. *Clinical Child Psychology and Psychiatry*, 26, 606 - 616. <https://doi.org/10.1177/13591045211026142>
- Yahya, A., Khawaja, S., & Naguib, M. (2023). 'Diabulimia': current insights into type 1 diabetes and bulimia nervosa. *Progress in Neurology and Psychiatry*, 27. <https://doi.org/10.1002/pnp.782>
- Yahya, A., Khawaja, S., Chukwuma, J., & Chukwuma, C. (2020). Early Diagnosis and Management of Bulimia Nervosa in Type 1 Diabetes.. *The primary care companion for CNS disorders*, 22 6. <https://doi.org/10.4088/pcc.20nr02707>
- Young, B. (2021). Type 1 Diabetes and Eating Disorders: The Importance of Healthcare Provider Knowledge of Eating Disorders in Type 1 Diabetes.