

Chapter 15

ENDOCRINE AND METABOLIC IMPAIRMENT

Introduction

This chapter provides criteria used to rate permanent impairment resulting from endocrine disorders and disorders of metabolism.

The endocrine system is composed of the hypothalamic-pituitary axis, the thyroid gland, the parathyroid glands, the adrenal glands, the islet cell tissue of the pancreas and the gonads.

Common endocrine disorders and disorders of metabolism assessed within this chapter include:

- hyperthyroidism
- hypothyroidism
- hyperparathyroidism
- hypoparathyroidism
- hyperadrenocorticism (e.g. Cushing's disease)
- hypoadrenalism (e.g. Addison's disease)
- diabetes mellitus
- hyperlipidemia
- metabolic bone disease (e.g. osteoporosis).

Also assessed within this chapter are hypothalamic-pituitary axis disorders and Paget's disease of the bone.

The pituitary gland, influenced by the hypothalamus, releases several hormones which control the activity of other endocrine glands or directly effect tissues of the body. The hormones released include:

- thyrotropin (TSH) controls activity of the thyroid gland
- corticotropin (ACTH) controls the activity of the adrenal glands
- luteinizing hormone (LH) and follicle-stimulating hormone (FSH) control the activity of the gonads
- growth hormone (GH)
- prolactin
- antidiuretic hormone (ADH)
- oxytocin.

Disorders of the hypothalamic-pituitary axis may affect one or several of these hormones. Each affected hormone may result in permanent impairment.

Paget's disease of the bone is a non-metabolic bone disease; however, for assessment purposes, this condition is rated by using the criteria contained within **Table 15.3**.

A rating is **not** given from this chapter for conditions listed below. Each bullet indicates the appropriate chapter to be used:

- Gonad (ovarian and testicular) impairment is rated within Chapter 16, Urinary, Sexual and Reproductive Impairment.
- Mammary gland impairment is rated within Chapter 16, Urinary, Sexual and Reproductive Impairment.

If ratings are applicable from both **Table 15.3** and Chapter 16 for a hypothalamic-pituitary axis disorder, the ratings are **added**.

Impairment from malignant endocrine conditions is rated within Chapter 18, Malignant Impairment. Follow the steps contained within the Malignant Impairment chapter.

Rating Tables

This chapter contains two "Loss of Function" tables and one "Other Impairment" table which are used to assess the impairment from entitled endocrine and metabolic disorders.

The tables within this chapter are:

Table 15.1	Loss of Function - Diabetes Mellitus	This table is used to rate impairment from diabetes mellitus.
Table 15.2	Other Impairment - Diabetic Foot Ulcers	This table is used to rate impairment from diabetic foot ulcers.
Table 15.3	Loss of Function - Endocrine and Metabolic Disorders (Excluding Diabetes Mellitus)	This table is used to rate impairment from endocrine and metabolic disorders other than diabetes mellitus.

Loss of Function - Diabetes Mellitus

Table 15.1 is used to rate impairment from diabetes mellitus. Only one rating may be selected. If more than one rating is applicable, the ratings are **compared** and the **highest** selected.

Diabetes mellitus may result in permanent impairment of other organ systems (e.g. diabetic retinopathy, diabetic neuropathy, diabetic foot ulcers, diabetic nephropathy). If this is the case, a consequential entitlement decision is required. If awarded, the resulting impairment of that organ system(s) will be rated using the applicable body system specific table(s). Diabetic foot ulcers are rated within this chapter from **Table 15.2**.

If non-entitled conditions or conditions rated within another chapter/table of the Table of Disabilities are contributing to the overall impairment, then the Partially Contributing Table (PCT) must be applied to arrive at the rating which is due to the entitled condition(s) rated within this table.

Other Impairment - Diabetic Foot Ulcers

Table 15.2 is used to rate impairment from diabetic foot ulcers. Only one rating may be selected. If more than one rating is applicable, the ratings are **compared** and the **highest** selected.

Any resulting amputation is rated using the Amputation Table in Chapter 17, Musculoskeletal Impairment. The ratings from **Table 15.2** and the Chapter 17 rating are **compared** and the **highest** selected.

If diabetic foot ulcers and peripheral vascular arterial disease are both entitled, the conditions are bracketed and one rating is obtained from **Table 13.2** within Chapter 13, Hypertension and Vascular Impairment. No rating is taken from **Table 15.2**.

Diabetic foot ulcers may result in permanent impairment of other organ systems (e.g. chronic osteomyelitis). If this is the case, a consequential entitlement decision is required. If awarded, the resulting impairment of that organ system(s) will be rated using the applicable body system specific table(s).

If non-entitled conditions or conditions rated within another chapter/table of the Table of Disabilities are contributing to the overall impairment, then the Partially Contributing Table (PCT) must be applied to arrive at the rating which is due to the entitled condition(s) rated within this table.

Loss of Function - Endocrine and Metabolic Disorders (Excluding Diabetes Mellitus)

Table 15.3 is used to rate impairment from endocrine and metabolic disorders other than diabetes mellitus. One rating may be selected for each entitled condition (excluding diabetes and hypothalamic-pituitary axis disorders). If more than one rating is applicable for an entitled condition, the ratings are **compared** and the **highest** selected.

In the majority of cases, treatment will completely control or permanently correct endocrine and metabolic disorders. If activities of daily living are affected despite optimal treatment or if optimal treatment cannot be provided due to other medical conditions, a rating will be determined from Chapter 19, Activities of Daily Living. If a rating is applicable from both **Table 15.3** and the ADL chapter, the ratings are **compared** and the **highest** selected.

Endocrine and metabolic disorders may result in permanent impairment of other organ systems. If this is the case, a consequential entitlement decision is required. If awarded, the resulting impairment of that organ system(s) will be rated using the applicable body system specific table(s).

If non-entitled conditions or conditions rated within another chapter/table of the Table of Disabilities are contributing to the overall impairment, then the Partially Contributing Table (PCT) must be applied to arrive at the rating which is due to the entitled condition(s) rated within this table.

Table 15.1 - Loss of Function - Diabetes Mellitus

Only one rating may be given from **Table 15.1**. If more than one rating is applicable, the ratings are **compared** and the **highest** selected.

Each bullet (•) represents one criterion. In order for a rating to be established for **Table 15.1**, all criteria designated at that rating level must be met.

Table 15.1 - Loss of Function - Diabetes Mellitus

Rating	Criteria
Four	• Diabetes mellitus controlled by restricted diet and exercise.
Thirteen	• Diabetes mellitus controlled by restricted diet, exercise and use of oral hypoglycemic medication(s).
Twenty-one	• Diabetes mellitus requiring the use of insulin.
Thirty-four	• Poorly controlled diabetes mellitus despite optimal therapy; and • Complications intrinsic* to diabetes mellitus are present on a regular basis.

* Intrinsic complications - pruritus; transient skin infections; hypoglycemic reactions; ketoacidosis.

Table 15.2 - Other Impairment - Diabetic Foot Ulcers

Only one rating may be given from **Table 15.2**. If more than one rating is applicable, the ratings are **compared** and the **highest** selected.

Each bullet (•) represents one criterion. In order for a rating to be established for **Table 15.2**, all criteria designated at that rating level must be met.

Table 15.2 - Other Impairment - Diabetic Foot Ulcers

Rating	Criteria
Nine	• Diabetic foot ulcer(s) involving one foot.
Twenty-one	• Diabetic foot ulcers involving both feet.

Table 15.3 - Loss of Function - Endocrine and Metabolic Disorders (Excluding Diabetes Mellitus)

One rating from **Table 15.3** may be given for each entitled endocrine and metabolic disorder (excluding diabetes mellitus and hypothalamic-pituitary axis disorders). If more than one rating is applicable for a disorder, the ratings are **compared** and the **highest** selected.

In cases of entitled hypothalamic-pituitary axis disorders, one rating from **Table 15.3** may be selected for each resulting endocrine abnormality. If more than one rating is applicable, the ratings are **added**.

Each bullet (•) represents one criterion. In order for a rating to be established for **Table 23.1**, follow the “**and(s)**” and “**or(s)**”.

Table 15.3 - Loss of Function - Endocrine and Metabolic Disorders (excluding Diabetes Mellitus)

Rating	Criteria
Nil	<ul style="list-style-type: none"> • Asymptomatic; and • No requirement for treatment; or • History of endocrine or metabolic disorder permanently corrected by treatment.
One	<ul style="list-style-type: none"> • Endocrine or metabolic disorder requiring regular injections less than monthly.
Two	<ul style="list-style-type: none"> • Endocrine or metabolic disorder requiring regular injections on a monthly basis; or • Endocrine or metabolic disorder requiring a specific diet.
Three	<ul style="list-style-type: none"> • Endocrine or metabolic disorder requiring continuous oral or nasal medication; or • Endocrine or metabolic disorder requiring regular injections more than once per month but less than weekly.
Four	<ul style="list-style-type: none"> • Endocrine or metabolic disorder requiring injections on a weekly basis.
Nine	<ul style="list-style-type: none"> • Symptomatic endocrine or metabolic disorder despite optimal treatment, but there is no difficulty with performing activities of daily living; or • Endocrine or metabolic disorder requiring regular daily injections.

Steps to Determine Diabetes Mellitus and Diabetic Foot Ulcer Assessment

- Step 1:** Determine the rating from **Table 15.1** (Loss of Function - Diabetes Mellitus).
- Step 2:** Does the Partially Contributing Table apply? If **yes**, apply to the rating at Step 1.
- Step 3:** Determine the Quality of Life rating.
- Step 4:** Add the ratings at Step 2 and Step 3.
- Step 5:** If partial entitlement exists, apply to the Step 4 rating.

This is the Disability Assessment for diabetes mellitus.

- Step 6:** Determine the rating from **Table 15.2** (Other Impairment - Diabetic Foot Ulcers).
- Step 7:** Does the Partially Contributing Table apply? If **yes**, apply to the rating at Step 6.

Note: If diabetic foot ulcers **and** peripheral vascular disease are **both** present, **no rating is taken from this chapter**. A rating is taken **only** from **Table 13.2** - Other Impairment - Peripheral Vascular Arterial Disease in Chapter 13, Hypertension and Vascular Impairment.

- Step 8:** Determine the Quality of Life rating.
- Step 9:** Add the ratings at Step 7 and Step 8.
- Step 10:** If partial entitlement exists, apply to rating at Step 9.

This is the Disability Assessment for diabetic foot ulcers.

**Steps to Determine the Endocrine and Metabolic
Assessment
(excludes diabetes mellitus and diabetic foot ulcers)**

Step 1: Determine the rating from **Table 15.3** (Loss of Function - Endocrine and Metabolic Disorders [excluding diabetes mellitus]).

Note: If the condition to be rated from **Table 15.3** is a hypothalamic - pituitary axis disorder, one rating may be taken from **Table 15.3** for each resulting pituitary abnormality. If this is the case, the individual ratings are **added**.

Step 2: Does the Partially Contributing Table apply? If **yes**, then apply to the rating at Step 1.

Step 3: Determine the Quality of Life rating.

Step 4: Add the ratings at Step 2 and Step 3.

Step 5: If partial entitlement exists, apply to Step 4 rating.

Step 6: If activities of daily living are affected despite optimal treatment, determine the rating from **Chapter 19**, Activities of Daily Living.

Step 7: **Compare** ratings at Step 5 and Step 6 and select the **highest**.

This is the Disability Assessment.