



Full-Field Electretinography (ERG) Coding and Reimbursement Guide

Physician Office

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Full-Field ERG Coding Overview

Electroretinography is used to diagnose and evaluate the conditions of the retina and optic nerve, including photoreceptors and ganglion cells, by measuring the electrical activity generated by retinal cells in response to light stimulus. For conventional, full-field, or flash ERG (92273), the summation of electrical response from the entire retina is evoked by a flash of light scattered throughout the eye. This ERG can record the response from the entire retina. Any deviation in waveform represents disease. The test can detect changes before ophthalmoscopic changes occur or when cataracts or corneal opacity prevent ophthalmoscopic exam.

Physician Reimbursement

CPT	Descriptor	MPFS
		Physician Payment
92273	ERG with interpretation and report; full field (ie, ffERG, flash ERG, Ganzfeld ERG)	\$120

Diagnosis Coding

There are 710 ICD-10-CM codes associated with the CPT codes used to report ERG. The following list provides some of the more common ICD-10-CM diagnosis codes that may be used for the protocols associated with RETeval and is not intended to be an all-inclusive list.

Diabetic Retinopathy Assessment

"X" indicates that a higher level of specificity may be added (e.g. right, left, bilateral, unspecified, with macular edema or without macular edema).

ICD-10-CM	Descriptor
E08.31XX	Diabetes mellitus due to underlying condition with unspecified diabetic retinopathy
E08.32XX	Diabetes mellitus due to underlying condition with mild non-proliferative diabetic retinopathy
E08.33XX	Diabetes mellitus due to underlying condition with moderate nonproliferative diabetic retinopathy
E08.34XX	Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy
E08.35XX	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy
E09.31XX	Drug or chemical induced diabetes mellitus with unspecified diabetic retinopathy
E09.32XX	Drug or chemical induced diabetes mellitus with mild non-proliferative diabetic retinopathy
E09.33XX	Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy
E09.34XX	Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy
E09.35XX	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy

ICD-10-CM	Descriptor
E10.31XX	Type 1 diabetes mellitus with unspecified diabetic retinopathy
E10.32XX	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy
E10.33XX	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy
E10.34XX	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy
E10.35XX	Type 1 diabetes mellitus with proliferative diabetic retinopathy
E11.31XX	Type 2 diabetes mellitus with unspecified diabetic retinopathy with macular edema
E11.32XX	Type 2 diabetes mellitus with mild non-proliferative diabetic retinopathy
E11.33XX	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy
E11.34XX	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy
E11.35XX	Type 2 diabetes mellitus with proliferative diabetic retinopathy
E13.31XX	Other specified diabetes mellitus with unspecified diabetic retinopathy
E13.32XX	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy
E13.33XX	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy
E13.34XX	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy
E13.35XX	Other specified diabetes mellitus with proliferative diabetic retinopathy
H34.82X	Venous engorgement
H35.01X	Changes in retinal vascular appearance
H35.02X	Exudative retinopathy
H35.04X	Retinal micro-aneurysms, unspecified
H35.05X	Retinal neovascularization, unspecified
H35.06X	Retinal vasculitis
H35.6X	Retinal hemorrhage

PhNR 3.4 Hz Long / Short

ICD-10-CM	Descriptor
H35.89	Other specified retinal disorders (may be reported as RNFL bundle defect)
H46	Optic neuritis
H46.0X	Optic papillitis
H46.1X	Retrobulbar neuritis
H46.2	Nutritional optic neuropathy
H46.3	Toxic optic neuropathy
H46.8	Other optic neuritis
H46.9	Unspecified optic neuritis
H47	Other disorders of optic [2nd] nerve and visual pathways
H47.01X	Ischemic optic neuropathy
H47.09X	Other disorders of optic nerve, not elsewhere classified
H47.10	Unspecified papilledema
H47.11	Papilledema associated with increased intracranial pressure
H47.12	Papilledema associated with decreased ocular pressure
H47.13	Papilledema associated with retinal disorder
H47.14X	Foster-Kennedy syndrome
H47.20	Unspecified optic atrophy

ICD-10-CM	Descriptor
H47.21X	Primary optic atrophy
H47.22	Hereditary optic atrophy
H47.23X	Glaucomatous optic atrophy
H47.29X	Other optic atrophy
H47.32	Drusen of optic disc
H47.33	Pseudopapilledema of optic disc
H47.39X	Other disorders of optic disc

Flicker 16 Td-s (32 Td-s for Patients with Cataracts)

ICD-10-CM	Descriptor
H30.00X	Unspecified focal chorioretinal inflammation
H31.01X	Macula scars of posterior pole (post-inflammatory) (post-traumatic)
H33.01X	Retinal detachment with single break
H33.02X	Retinal detachment with multiple breaks
H33.33X	Multiple defects of retina without detachment
H34.1X	Central retinal artery occlusion
H34.21X	Partial retinal artery occlusion
H34.23X	Retinal artery branch occlusion
H34.81XX	Central retinal vein occlusion
H34.9	Unspecified retinal vascular occlusion
H35.00	Unspecified background retinopathy
H35.02X	Exudative retinopathy
H35.03X	Hypertensive retinopathy
H35.10X	Retinopathy of prematurity, unspecified
H35.2X	Other non-diabetic proliferative retinopathy
H35.30	Unspecified macular degeneration
H35.31XX	Nonexudative age-related macular degeneration
H35.32XX	Exudative age-related macular degeneration
H35.34	Macular cyst, hole, or pseudohole
H35.36X	Drusen (degenerative) of macula
H35.37	Puckering of macula
H35.38X	Toxic maculopathy
H35.40X	Unspecified peripheral retinal degeneration
H35.44X	Age-related reticular degeneration of retina
H35.45X	Secondary pigmentary degeneration
H35.46X	Secondary vitreoretinal degeneration
H35.50	Unspecified hereditary retinal dystrophy
H35.51	Vitreoretinal dystrophy
H35.52	Pigmentary retinal dystrophy
H35.6	Retinal hemorrhage
H35.7XX	Separation of retinal layers
H35.71	Central serous chorioretinopathy
H35.81	Retinal edema

ICD-10-CM	Descriptor
H35.82	Retinal ischemia
H35.89	Other specified retinal disorders
H47.32	Drusen of optic disc
H53.60	Unspecified night blindness
H53.8	Other visual disturbances
H53.9	Unspecified visual disturbance
H55.0X	Nystagmus

2025 Medicare Reimbursement for ERG with Interpretation and Report (CPT 92273)

MAC	Locality	State	Locality Name	Payment
10112	AL	00	Alabama	\$106.64
02102	AK	01	Alaska*	\$138.25
03102	AZ	00	Arizona	\$117.13
07102	AR	13	Arkansas	\$105.72
01112	CA	54	Bakersfield	\$128.70
01112	CA	55	Chico	\$128.53
01182	CA	71	El Centro	\$128.54
01112	CA	56	Fresno	\$128.53
01112	CA	57	Hanford-Corcoran	\$128.53
01182	CA	18	LA-Long Beach-Anaheim (LA/Orange Cnty)	\$139.02
01112	CA	58	Madera	\$128.53
01112	CA	59	Merced	\$128.53
01112	CA	60	Modesto	\$128.53
01112	CA	51	Napa	\$150.39
01182	CA	17	Oxnard-Thousand Oaks-Ventura	\$137.56
01112	CA	61	Redding	\$128.53
01112	CA	62	Riverside-San Bernardino-Ontario	\$128.85
01112	CA	63	Sacramento-Roseville-Folsom	\$135.05
01112	CA	64	Salinas	\$135.94
01182	CA	72	San Diego-Chula Vista-Carlsbad	\$138.30
01112	CA	05	San Fran-Oakland-Berkeley (San Fran/San Mateo/Alameda/Contra Costa Cnty)	\$161.50
01112	CA	52	San Fran-Oakland-Berkeley (Marin Cnty)	\$161.52
01112	CA	65	San Jose-Sunnyvale-Santa Clara (San Benito Cnty)	\$163.42
01182	CA	73	San Luis Obispo-Paso Robles	\$132.29
01112	CA	09	San Jose-Sunnyvale-Santa Clara (Santa Clara Cnty)	\$163.28
01112	CA	66	Santa Cruz-Watsonville	\$139.78
01182	CA	74	Santa Maria-Santa Barbara	\$136.61
01112	CA	67	Santa Rosa-Petaluma	\$142.22
01112	CA	68	Stockton	\$128.53
01112	CA	53	Vallejo	\$150.34
01112	CA	69	Visalia	\$128.53
01112	CA	70	Yuba City	\$128.53
01112	CA	75	Rest Of California	\$128.53
04112	CO	01	Colorado	\$124.80
13102	CT	00	Connecticut	\$129.15
12202	DC	01	Dc + Md/Va Suburbs	\$139.62

MAC	Locality	State	Locality Name	Payment
12102	DE	01	Delaware	\$119.06
09102	FL	03	Fort Lauderdale	\$120.24
09102	FL	04	Miami	\$123.74
09102	FL	99	Rest Of Florida	\$114.35
10212	GA	01	Atlanta	\$119.52
10212	GA	99	Rest Of Georgia	\$108.53
01212	HI	01	Hawaii, Guam	\$133.62
02202	ID	00	Idaho	\$110.29
06102	IL	16	Chicago	\$123.04
06102	IL	12	East St. Louis	\$112.54
06102	IL	15	Suburban Chicago	\$125.00
06102	IL	99	Rest Of Illinois	\$111.57
08102	IN	00	Indiana	\$111.66
05102	IA	00	Iowa	\$110.77
05202	KS	00	Kansas	\$110.17
15102	KY	00	Kentucky	\$107.74
07202	LA	01	New Orleans	\$113.57
07202	LA	99	Rest Of Louisiana	\$108.19
14112	ME	03	Southern Maine	\$120.50
14112	ME	99	Rest Of Maine	\$110.96
12302	MD	01	Baltimore/Surr. Cntys	\$127.95
12302	MD	99	Rest Of Maryland	\$121.47
14212	MA	01	Metropolitan Boston	\$139.51
14212	MA	99	Rest Of Massachusetts	\$125.74
08202	MI	01	Detroit	\$119.10
08202	MI	99	Rest Of Michigan	\$111.27
06202	MN	00	Minnesota	\$121.41
07302	MS	00	Mississippi	\$105.19
05302	MO	02	Metropolitan Kansas City	\$114.66
05302	MO	01	Metropolitan St. Louis	\$115.05
05302	MO	99	Rest Of Missouri	\$106.07
03202	MT	01	Montana**	\$119.66
05402	NE	00	Nebraska	\$111.01
01312	NV	00	Nevada**	\$119.53
14312	NH	40	New Hampshire	\$122.86
12402	NJ	01	Northern Nj	\$137.72
12402	NJ	99	Rest Of New Jersey	\$130.90
04212	NM	05	New Mexico	\$110.98
13202	NY	01	Manhattan	\$137.77
13202	NY	02	Nyc Suburbs/Long Island	\$141.30
13202	NY	03	Poughkpsie/N Nyc Suburbs	\$131.19
13292	NY	04	Queens	\$140.38
13282	NY	99	Rest Of New York	\$114.51
11502	NC	00	North Carolina	\$112.22
03302	ND	01	North Dakota**	\$119.21
15202	OH	00	Ohio	\$111.14
04312	OK	00	Oklahoma	\$108.99
02302	OR	01	Portland	\$129.60
02302	OR	99	Rest Of Oregon	\$117.99
12502	PA	01	Metropolitan Philadelphia	\$125.50

MAC	Locality	State	Locality Name	Payment
12502	PA	99	Rest Of Pennsylvania	\$112.57
09202	PR	20	Puerto Rico	\$120.34
14412	RI	01	Rhode Island	\$123.85
11202	SC	01	South Carolina	\$111.12
03402	SD	02	South Dakota**	\$119.08
10312	TN	35	Tennessee	\$109.21
04412	TX	31	Austin	\$124.03
04412	TX	20	Beaumont	\$110.28
04412	TX	09	Brazoria	\$120.37
04412	TX	11	Dallas	\$120.48
04412	TX	28	Fort Worth	\$119.64
04412	TX	15	Galveston	\$119.85
04412	TX	18	Houston	\$120.68
04412	TX	99	Rest Of Texas	\$114.32
03502	UT	09	Utah	\$113.16
14512	VT	50	Vermont	\$118.54
11302	VA	00	Virginia	\$117.95
09202	VI	50	Virgin Islands	\$120.34
02402	WA	02	Seattle (King Cnty)	\$141.71
02402	WA	99	Rest Of Washington	\$123.50
11402	WV	16	West Virginia	\$106.70
06302	WI	00	Wisconsin	\$114.89
03602	WY	21	Wyoming**	\$119.43

MAC Assignments as of November 22, 2023

*Work GPCI reflects a 1.5 floor in Alaska established by the MIPPA.

**PE GPCI reflects a 1.0 floor for frontier states established by the ACA.

Note: The 1.0 Work GPCI floor was extended by Section 3206 of the American Relief Act, 2025 [December 21, 2024] through March 31, 2025.

Search the current [CMS Physician Fee Schedule](#).

Medicare Coverage ERG

MAC	LCD*†	Coding & Billing Article†	92273
CGS	L38992 Electroretinography	A58706 Electroretinography	Covered
FCSO	L37398 Electroretinography	A57677 Electroretinography	Covered
NGS	L36831 Visual Electrophysiology Testing	A57060 Visual Electrophysiology Testing	Covered
Noridian	No LCD	No Article	Silent
Novitas	L37371 Electroretinography	A56672 Electroretinography	Covered
Palmetto	No LCD	No Article	Silent
WPS	L37015 Visual Electrophysiology Testing	A57599 Visual Electrophysiology Testing	Covered

*If there is no LCD, no written policy exists regarding ERG and coverage is considered “silent.” Coverage will be determined on a case-by-case basis and based on medical necessity.

†Please click on the link to view the coverage details and a comprehensive list of ICD-10-CM codes that are covered.

References

1. CY 2025 Payment Policies under the Physician Fee Schedule and Other Changes to Part B Payment Policies; (CMS-1807-F); Addendum B. All MPFS Fee Schedules calculated using CF of \$32.3465 effective January 1, 2025.
1. ICD-10-CM 2025 ©2024Optum360, LLC. All rights reserved.
2. 2025 CPT Professional, ©2024 American Medical Association.
3. Decision Health, Select Coder

Frequently Asked Questions

Can 92273 (ffERG) be billed the same day as optical coherence tomography (OCT)?

OCT can be reported with either of the following CPT codes:

- 92133: Scanning computerized ophthalmic diagnostic imaging, posterior segment, with interpretation and report, unilateral or bilateral; optic nerve; or
- 92134: Scanning computerized ophthalmic diagnostic imaging, posterior segment, with interpretation and report, unilateral or bilateral; retina.

There are no CCI edits preventing 92273 from being reported on the same date of service as 92133 or 92134.

Can 92273 (ffERG) be billed the same day as a visual field test?

Visual field tests may be reported with one of three CPT codes:

- 92081: Visual field examination, unilateral or bilateral, with interpretation and report; limited examination (e.g., tangent screen, or single stimulus level automated test);
- 92082: Visual field examination, unilateral or bilateral, with interpretation and report; intermediate examination (e.g., at least 2 isopters on Goldmann, or automated suprathreshold); or
- 92083: Visual field examination, unilateral or bilateral, with interpretation and report; extended examination (e.g., Goldmann visual fields with at least 3 isopters plotted and static determination within the central 30°, or quantitative, automated threshold perimetry, Octopus program G-1, 32 or 42, Humphrey VF analyzer full threshold programs 30-2, 24-2, or 30/60-2).

There are no CCI edits preventing 92273 from being reported on the same date of service as 92081, 92082, or 92083.

Can 92273 (ffERG) be billed the same day as fundus photography?

Fundus photography can be reported with the following CPT code:

- 92250: Fundus photography with interpretation and report.

There are no CCI edits preventing 92273 from being reported on the same date of service as 92250.

Is CPT 92273 covered for suspected glaucoma?

The ICD-10-CM diagnoses code for suspected glaucoma is H40.0 – Glaucoma Suspect. Coverage for CPT 92273 for glaucoma suspect will vary by payer:

- Medicare MACs CGS, FCSO, NGS, Novitas, and WPS do not provide coverage for 92273 for suspected glaucoma.
- Noridian and Palmetto have not published an LCD for ERG; coverage will be determined upon review of the claim.
- Coverage with private payers will vary and we recommend you check a given payer's specific coverage policy for ERG to determine what diagnoses are covered for this procedure.
- Medicare does provide coverage for glaucomatous optic atrophy (H47.23X).

Is CPT 92273 covered in patients who are diagnosed with glaucoma?

ICD-10-CM diagnoses codes for a patient diagnosis with glaucoma are H40.1-H40. Coverage of CPT 92273 for patients diagnosed with glaucoma will vary by payer. Medicare MACs CGS, FCSO, NGS, Novitas, and WPS do not provide coverage for 92273, for patients with a diagnosis of glaucoma. Noridian and Palmetto have not published an LCD for ERG; coverage will be determined upon review of the claim. Coverage with private payers will vary and we recommend you check a given payer's specific coverage policy for ERG to determine what diagnoses are covered for this procedure.

Can 92273 be reported for a patient not yet diagnosed with diabetes mellitus?

Coverage of CPT 92273 for patients not yet diagnosed with diabetes mellitus will vary from payer to payer. For example, some local MACs and commercial payers will only allow CPT 92273 to be reported for patients with diabetes mellitus and some form of diabetic retinopathy. It should also be noted that some payers may cover patients that present with unspecified visual disturbances (H53.9) or unspecified visual loss (H54.7). Please be sure to check your local payer coverage policies to determine specific coverage criteria.

Can 92273 be reported for a patient diagnosed with diabetes mellitus but not diabetic retinopathy?

Coverage of CPT 92273 for patients diagnosed with diabetes mellitus but not yet diagnosed with diabetic retinopathy will vary from payer to payer. For example, some local MACs and commercial payers will only allow CPT 92273 to be reported for patients with diabetes mellitus as well as some form of diabetic retinopathy (e.g. mild, moderate, or severe non-proliferative diabetic retinopathy). It should also be noted that some payers may cover patients that present with unspecified visual disturbances (H53.9) or unspecified visual loss (H54.7). Please be sure to check your local payer coverage policies to determine specific coverage criteria.