CLINICAL MONOGRAPH · TISSUE REPAIR (UNDER FDA REVIEW)

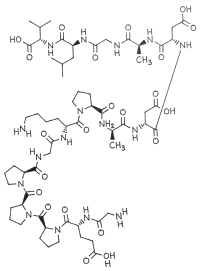
Pentadeca Arginate (PDA)

BPC-157 analog marketed with sparse published evidence

Pentadeca Arginate, or PDA, is a peptide that is sold and marketed as an upgraded version of an older research peptide called BPC-157 [pubmed_search_pda_2026]. PDA is the same 15-amino-acid sequence as BPC-157, formulated as an arginate (arginine) salt that the marketers claim makes it more stable and more available to tissues. Most of those claims come from manufacturer materials, not from published research.

As of May 2026, there is essentially no peer-reviewed human or animal research on PDA itself in the medical literature. Almost all of the published science on this class of peptide is on BPC-157, and that research is itself almost entirely in rodents, mostly from a single research group. No PDA product has FDA approval for any condition.

Pentadeca arginate has no FDA approval in the United States. This ingredient is part of an evolving FDA review process. Physicians may submit patient-specific prescription requests for pharmacy review. Availability is determined case by case, and availability may change after FDA review, PCAC discussion, final agency action, or state-board guidance.



EVIDENCE POSTURE PRECLINICAL

REVIEWED **2026-05-11**

State-licensed 503A | Pharmacist reviewed | Doctor led | Cold-chain ready | Patient choice preserved

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FOR CLINICIANS

Pentadeca Arginate (PDA) is an investigational pentadecapeptide marketed as a salt-form analog of BPC-157 with claims of improved stability and tissue penetration. A targeted PubMed search for 'pentadeca arginate' on 2026-05-11 returned zero results [pubmed_search_pda_2026]; the substance has effectively no independent peer-reviewed pharmacokinetic, pharmacodynamic, safety, or efficacy literature in PubMed-indexed journals [mendias2026_review]. Claims around PDA derive from extrapolation of the BPC-157 preclinical literature, itself dominated by a single Croatian research group (Sikiric and colleagues) reporting cytoprotection, angiogenesis modulation via nitric-oxide-system effects, and wound-healing effects in rodent models of gastrointestinal injury, tendon and ligament repair, and vascular and electrolyte disturbance [sikiric2024_review; seiwerth2021; sikiric2025_comment].

Pentadeca arginate has no FDA approval in the United States. This ingredient is part of an evolving FDA review process. Physicians may submit patient-specific prescription requests for pharmacy review. Availability is determined case by case, and availability may change after FDA review, PCAC discussion, final agency action, or state-board guidance.

Why Personalized Pentadeca Arginate (PDA)

The evidence base for pentadeca arginate is thinner than the evidence base for BPC-157. A targeted PubMed search found no peer-reviewed PDA-specific studies, so claims about improved stability, potency, or tissue penetration remain marketing hypotheses rather than published findings.

Physicians may submit patient-specific prescription requests for pentadeca arginate for pharmacy review. Certain preparations may be available now when clinically appropriate, lawfully prescribed, supported by patient-specific documentation, and approved by the dispensing pharmacy. Availability is determined case by case. This is not a consumer access promise; it is a clinical, sourcing, formulation, and regulatory review process. This ingredient is part of an evolving FDA review process for peptide-related bulk substances, with review anchored by the closely related BPC-157 record.

The patient-specific pharmacy route is especially important when the published PDA record is nearly absent. It keeps a marketing claim about an arginate salt from becoming a consumer product claim without prescriber documentation and pharmacist review.

Quick Facts About Pentadeca Arginate (PDA)

Category: Investigational pentadecapeptide arginate salt; marketed as a BPC-157 analog

Active ingredient: A 15-amino-acid peptide (sequence as marketed: GEPPPGKPADDAGLV) formulated as an arginate salt purported to improve solubility, stability, and tissue penetration relative to BPC-157 acetate

FDA-approved branded forms: None. There is no FDA-approved product containing pentadeca arginate for any indication.

Route: Subcutaneous, intramuscular, or oral as marketed in research-peptide channels; no labeled or compendial route

Evidence posture: A PubMed search for 'pentadeca arginate' on 2026-05-11 returned zero results. Published peer-reviewed human or animal data for PDA itself are effectively absent; marketing claims rely on extrapolation from the BPC-157 preclinical literature and from unpublished manufacturer-sourced material.

FDA-approval status: Category 2, evolving FDA review process. Valid patient-specific prescription required; supporting clinical rationale may be requested.

Compounded under: Physicians may submit patient-specific prescription requests for pharmacy review. Availability is determined case by case.

Important compounding caution: Physicians may submit patient-specific prescription requests for pharmacy review. Availability is determined case by case.

SPECIALS: PATIENT-SPECIFIC PRESCRIPTION ONLY

Physicians may submit patient-specific prescription requests for Pentadeca Arginate (PDA) for pharmacy review. Certain preparations may be available now when clinically appropriate, lawfully prescribed, and approved by the dispensing pharmacy. Availability is determined case by case.

- **Made to order, not off a shelf.** No batch sits in a warehouse waiting for buyers. Your prescription triggers the prep.
- **Named-patient label.** The bottle carries one patient's name. The batch records carry one prescription.
- **Dose, strength, and route chosen for the patient.** A prescriber decides what gets compounded, not a manufacturer who set the strength for a trial population.
- **Licensed pharmacist on the hook.** A real person, with a license that can be pulled, signs off on every prep. State inspectors check the facility.
- **Compounded drugs are not FDA-approved.** They should not be evaluated using branded-drug trial data alone. Availability varies by state and prescribed medication.

How This Differs from a Research-Use-Only Website

A research-use-only website ships a vial from a warehouse. There is no prescription, no pharmacist, no facility inspection, and no way to recall the product if something is wrong with it. If the vial is mislabeled, contaminated, or under-potent, there is nobody whose license is at stake.

A 503A compounding pharmacy is the other thing. The doctor writes the prescription. A licensed pharmacist, whose name is on the label, prepares the medicine in a facility the state inspects. If something goes wrong, there is a person and a license on the hook, and a documented chain of custody on every lot. That accountability is what makes it safe.

What is Pentadeca Arginate (PDA)?

Pentadeca Arginate (PDA) is, as marketed, a 15-amino-acid peptide identical in primary sequence to Body Protection Compound 157 (BPC-157), itself derived from a fragment of a human gastric juice protein originally characterized by Sikiric and colleagues at the University of Zagreb in the 1990s [sikiric1999]. PDA is differentiated from BPC-157 acetate by its counter-ion: arginate (an arginine salt) rather than acetate. The arginate counter-ion is the basis for marketing claims of improved aqueous solubility, longer shelf-life, and better tissue distribution.

There is no FDA-approved product containing PDA for any indication. There is no USP monograph. PDA is not listed on the FDA 503A or 503B Category 1 bulks lists, and by sequence-and-class analogy to BPC-157 it falls within the broader category of investigational pentadecapeptides under FDA scrutiny [fda_category2_bulks].

Distinct from the underlying BPC-157 literature, a PubMed search for 'pentadeca arginate' on 2026-05-11 returned zero results [pubmed_search_pda_2026]. PDA is therefore best characterized as a marketing-stage molecule: claimed properties have not been published in peer-reviewed PubMed-indexed journals, and any inferences about its behavior in humans are extrapolations from the BPC-157 rodent literature plus manufacturer-supplied material that is not independently reproducible.

How Pentadeca Arginate (PDA) Works

No PDA-specific mechanism-of-action data have been published in PubMed-indexed journals as of 2026-05-11 [pubmed_search_pda_2026]. The mechanistic framework cited by PDA marketers is borrowed directly from the BPC-157 literature.

In rodent BPC-157 work, the proposed mechanism centers on modulation of the nitric-oxide (NO) system, upregulation of vascular endothelial growth factor receptor 2 (VEGFR2), and effects on angiogenesis and collateral circulation that the authors frame as 'cytoprotection' against gastrointestinal, vascular, and musculoskeletal injury [seiwerth2021, sikiric2024_review, sikiric2025_comment]. Reported downstream effects in rat models include accelerated tendon-to-bone healing, ligament healing, muscle and myotendinous-junction repair, mucosal healing in colitis and anastomotic injury models, and counteraction of occlusion-like vascular failure [cerovecki2010; japjec2021; staresinic2022].

These mechanism claims have not been independently replicated outside the originating laboratory at the level of detail or breadth reported, and they have not been demonstrated for PDA specifically. The arginate-counter-ion claim, that salt form alters tissue distribution or potency, is a pharmaceutical hypothesis that

has not been tested for PDA in any peer-reviewed publication identified in PubMed [pubmed_search_pda_2026] [bajramagic2024; vukusic2024].

Detailed Mechanism of Pentadeca Arginate (PDA)

BPC-157 has been reported in rodent studies to influence the nitric-oxide system, modulate angiogenesis via VEGFR2 signaling, and support epithelial and connective-tissue repair under stress conditions [seiwerth2021, sikiric2024_review]. A 2025 review/patent analysis by Józwiak et al. cataloged the breadth of reported mechanisms and explicitly noted that the corpus is dominated by a single research group and that independent replication remains limited [jozwiak2025_review]. A 2025 commentary by Sikiric and colleagues, responding to that review, restated the mechanism framework centered on nitric-oxide and angiogenic effects [sikiric2025_comment].

For PDA specifically, no mechanistic study has been published in PubMed as of 2026-05-11 [pubmed_search_pda_2026]. The marketing claim is that the arginate counter-ion enhances solubility, in-solution stability, and tissue delivery relative to BPC-157 acetate. Counter-ion choice can in principle affect aqueous solubility and dissolution rate of peptide salts, but for PDA there are no published stability-indicating analytical data, no published pharmacokinetic comparison versus BPC-157 acetate, and no published in vitro or in vivo data demonstrating improved tissue distribution. The mechanism narrative for PDA is therefore an extrapolation layered on top of an already extrapolated mechanism framework.

A clinical commentary by Whitehouse (2025) further emphasized that even the broad cytoprotection claims around BPC-157 rest on a narrow translational base [whitehouse2025_commentary]. The cumulative caveat compounds for PDA: limited rodent data on the parent compound, no published data on the salt form, and no human trials of either form registered in PubMed.

Pentadeca Arginate (PDA) Research History

BPC-157, the parent compound from which PDA is derived, was characterized in the 1990s by Sikiric and colleagues as a 15-amino-acid fragment of a larger gastric juice protein, initially studied in rodent gastric-ulcer and cytoprotection models [sikiric1999]. A synthetic version designated PL 14736 advanced into early clinical investigation for ulcerative colitis under the development name later associated with BPC-157; the Sikiric group reviewed that program in 2012 [sikiric2012_colitis]. The substance never reached an FDA-approved product [mendias2026_review].

Through the 2010s and 2020s the BPC-157 preclinical literature expanded substantially in rodent injury models, including ligament healing [cerovecki2010], myotendinous-junction repair [japjec2021], striated and smooth muscle effects [staresinic2022], intestinal anastomosis [bajramagic2024], duodenocolic fistula [vukusic2024], and a multi-decade arc of gastrointestinal cytoprotection studies summarized in narrative reviews by the originating group [seiwerth2021, sikiric2024_review, sikiric2023_review]. Independent

narrative reviews and systematic reviews in orthopaedic and sports-medicine literature uniformly characterize the human evidence base as sparse and the use as off-label and investigational [mcguire2025_review; vasireddi2025_systematic_review; mayfield2026_primer].

PDA emerged as a marketing category in the early 2020s, positioned as a 'next-generation' arginate-salt form of BPC-157. A direct PubMed search for 'pentadeca arginate' on 2026-05-11 returned zero results [pubmed_search_pda_2026]. No clinical trials of PDA were identified in PubMed; no pharmacokinetic, stability, or tissue-distribution studies were identified. The substance entered FDA regulatory awareness alongside other compounded peptides under the interim 503A bulks framework [fda_category2_bulks].

Pentadeca Arginate (PDA) Timeline

1990s • Sikiric and colleagues at the University of Zagreb characterize BPC-157 as a 15-amino-acid fragment of a human gastric juice protein and report cytoprotection effects in rodent ulcer models [sikiric1999]

2010 • Cerovecki et al [cerovecki2010]. (J Orthop Res), BPC-157 (also referenced as PL 14736) reportedly accelerates ligament healing in a rat medial collateral ligament transection model

2012 • Sikiric et al [sikiric2012_colitis]. (Curr Med Chem) review the BPC-157 / PL 14736 development program for ulcerative colitis

2021 • Seiwerth et al [seiwerth2021]. (Front Pharmacol) publish a narrative review of BPC-157 wound-healing literature centered on nitric-oxide-system and VEGFR2 mechanisms

2021 • Japjec et al [japjec2021]. (Biomedicines) report a myotendinous-junction injury study in rats

2022 • Staresinic et al [staresinic2022]. (Biomedicines), review of BPC-157 effects on striated, smooth, and heart muscle in rodent models

2023 • FDA classifies BPC-157 as Category 2 under the interim 503A bulks framework, citing immunogenicity concerns, manufacturing impurity risk, and absence of human safety data [fda_category2_bulks]

2023 • Sikiric et al [sikiric2023_review]. (Pharmaceuticals) historical review of cytoprotection literature from cysteamine-duodenal-ulcer models through dopamine-stomach work

2024 • Sikiric et al [sikiric2024_review]. (Inflammopharmacology) consolidate occlusion-like vascular-syndrome cytoprotection studies

2024 • Bajramagic et al [bajramagic2024]. (Pharmaceuticals) review BPC-157 in rat intestinal anastomosis healing

2024 • Vukusic et al [vukusic2024]. (J Physiol Pharmacol) report duodenocolic fistula healing with BPC-157 in rats

2025 • Józwiak et al [jozwiak2025_review]. (Pharmaceuticals) publish a literature-and-patent review of BPC-157 highlighting concentration of reports within a single research group

2025 • Sikiric et al [sikiric2025_comment]. (Pharmaceuticals) publish a commentary responding to Józwiak, restating the nitric-oxide / angiogenesis mechanism framework

2025 • Whitehouse (Inflammopharmacology) commentary on the BPC-157 cytoprotection narrative and its translational limits [whitehouse2025_commentary]

2025 • Vasireddi et al. (HSS J), systematic review of BPC-157 in orthopaedic sports medicine; McGuire et al [vasireddi2025_systematic_review; mcguire2025_review]. (Curr Rev Musculoskelet Med) narrative review framing BPC-157 as 'regeneration or risk' given the human evidence gap

2026 • Mayfield et al [mayfield2026_primer; mendias2026_review]. (Am J Sports Med) injectable-peptide primer; Mendias and Awan (Sports Med) review of approved and unapproved peptide therapies for musculoskeletal injuries, both cite the unapproved status and limited human safety data for BPC-157-class peptides

2026 • PubMed search for 'pentadeca arginate' returns zero results, confirms that, as of the brief review date, no PDA-specific peer-reviewed literature is indexed [pubmed_search_pda_2026]

Clinical Contexts for Pentadeca Arginate (PDA)

Tissue repair, tendon/ligament healing, gastrointestinal mucosal healing (marketed indications) PRECLINICAL

Marketed indications for PDA borrow directly from the BPC-157 rodent literature; no PDA-specific clinical or preclinical evidence is published in PubMed.

Marketing material positions PDA as supporting tendon, ligament, muscle, and gastrointestinal mucosal repair, citing BPC-157 rodent studies in ligament transection [cerovecki2010], myotendinous-junction injury [japjec2021], striated/smooth/heart muscle models [staresinic2022], intestinal anastomosis [bajramagic2024], and duodenocolic fistula [vukusic2024]. Those studies are in rats, are concentrated in a single research group, and have not been replicated for PDA [mendias2026_review]. Independent reviews characterize the underlying human evidence base as insufficient to support clinical practice outside investigational settings [mcguire2025_review; vasireddi2025_systematic_review; mayfield2026_primer].

Compounded Pentadeca Arginate (PDA) (503A)

Physicians may submit patient-specific prescription requests for pharmacy review. For pentadeca arginate, certain preparations may be available now when clinically appropriate, lawfully prescribed, and approved by the dispensing pharmacy. Availability is determined case by case and may depend on patient-specific documentation, ingredient status, source qualification, formulation feasibility, state requirements, and pharmacist judgment. The review starts with the evidence constraint: The evidence base for pentadeca arginate is thinner than the evidence base for BPC-157. A targeted PubMed search found no peer-reviewed PDA-specific studies, so claims about improved stability, potency, or tissue penetration remain marketing hypotheses rather than published findings.

This ingredient is part of an evolving FDA review process. RonanRx is monitoring FDA's PCAC process and any subsequent agency action. This ingredient is part of an evolving FDA review process for peptide-related bulk substances, with review anchored by the closely related BPC-157 record. Availability may change after FDA review, PCAC discussion, final agency action, or state-board guidance. For pentadeca arginate, RonanRx ties that monitoring to the evidence limits described above and to any patient-specific documentation submitted by the prescriber.

Valid patient-specific prescription required. Supporting clinical rationale may be requested. Compounded medications are not FDA-approved. No consumer self-ordering, no office stock, no bulk dispensing. Requests for pentadeca arginate are reviewed before any preparation is made or released. The patient-specific pharmacy route is especially important when the published PDA record is nearly absent. It keeps a marketing claim about an arginate salt from becoming a consumer product claim without prescriber documentation and pharmacist review.

Pentadeca Arginate (PDA) Formulations and Routes

Form	Concentration	Description
Sterile subcutaneous or intramuscular injection (research-peptide channel)	As marketed, typically 2, 10 mg lyophilized vials reconstituted with bacteriostatic water; doses cited in marketing material range widely without published support	PDA as sold in the research-peptide channel is supplied as a lyophilized powder for reconstitution. Identity, potency, sterility, and endotoxin testing standards in that channel are heterogeneous and are not equivalent to USP <797> sterile-compounding standards. RonanRx does not source or dispense from these channels.

Routes used in published literature: subcutaneous, intramuscular, oral.

Pentadeca Arginate (PDA) Dosing

Route	Population	Range	Duration	Study type
Not applicable	No published peer-reviewed dose-finding data for PDA in any population	No dose range is supported by peer-reviewed PubMed-indexed evidence; marketing-channel dose recommendations are not derived from controlled studies	—	No qualifying studies identified

There is no PubMed-indexed peer-reviewed dose-finding data for PDA in humans or in animal models as of 2026-05-11 [pubmed_search_pda_2026]. Marketing-channel dose recommendations should not be treated as clinical guidance.

Even in the parent compound BPC-157, dose-finding data are limited to rodent injury models from a single research group, and translation to human dosing is not supported by published pharmacokinetic or pharmacodynamic studies in humans [seiwerth2021; sikiric2024_review; vasireddi2025_systematic_review]. Independent reviews caution explicitly against extrapolation [mcguire2025_review, mayfield2026_primer, mendias2026_review].

Pentadeca Arginate (PDA) Safety

No human safety dataset for pentadeca arginate has been published in PubMed-indexed journals as of 2026-05-11 [1]. The FDA's Category 2 classification of the parent compound BPC-157 explicitly cites three safety domains, potential immunogenicity from peptide aggregation or impurities, manufacturing-related contaminant risk in non-cGMP supply chains, and the absence of controlled human safety data [2] [21]. None of those concerns has been resolved for PDA, and no peer-reviewed PDA-specific safety study addresses them.

The BPC-157 rodent literature reports a broadly favorable acute tolerability profile in rats at the doses used in those studies [8] [14]. That profile is not interchangeable with a human safety profile and does not transfer to PDA without independent characterization. Independent narrative and systematic reviews of BPC-157 in orthopaedic/sports-medicine populations consistently flag the absence of human safety data and the use of unregulated research-peptide supply as the dominant safety concerns clinicians and patients face in practice [19] [17] [20].

Patients who have used PDA from research-peptide channels should be assessed clinically for injection-site reactions, hypersensitivity, and any unexpected events [19]. There is no validated assay panel for PDA-specific monitoring.

Contraindications

Honest gap. No published contraindication framework for pentadeca arginate identified in PubMed-indexed journals or in FDA labeling. PDA is not an FDA-approved drug and has no Prescribing Information.

Searched: PubMed, FDA Drug Compounding (bulks lists) on 2026-05-11 · terms *pentadeca arginate; pentadeca arginate contraindications; pentadeca arginate adverse*.

Drug interactions

Honest gap. No published drug-interaction data for pentadeca arginate identified. The substance is not metabolized through any characterized pathway in humans because no human pharmacokinetic studies have been published.

Searched: PubMed, DailyMed on 2026-05-11 · terms *pentadeca arginate drug interactions*.

Adverse events

Honest gap. No peer-reviewed published adverse-event series for pentadeca arginate identified. The FDA Category 2 classification of the parent compound BPC-157 cites theoretical immunogenicity and manufacturing-impurity risks but does not enumerate a clinical adverse-event profile from controlled trials.

Searched: PubMed, FDA Adverse Event Reporting System (FAERS), limited public access on 2026-05-11 · terms *pentadeca arginate adverse; pentadeca arginate AE*.

Monitoring Pentadeca Arginate (PDA) Therapy

There is no validated monitoring framework for pentadeca arginate. No PubMed-indexed peer-reviewed publication has characterized the relevant safety laboratory or imaging follow-up for patients exposed to PDA [pubmed_search_pda_2026]. Clinicians evaluating patients who have self-administered PDA from research-peptide channels should perform a clinical assessment focused on injection-site reactions, hypersensitivity manifestations, and any unexpected systemic signs, and document the exposure in the medical record.

Pentadeca Arginate (PDA) in Special Populations

Pentadeca Arginate (PDA) Evidence Quality

Evidence for pentadeca arginate itself is effectively absent from the peer-reviewed PubMed-indexed literature as of 2026-05-11 [pubmed_search_pda_2026]. A targeted PubMed search returned zero results

for the term 'pentadeca arginate'. There are no published pharmacokinetic, stability, sterility, mechanism, efficacy, or safety studies of PDA [mendias2026_review]. There are no registered clinical trials. The substance is best characterized as a marketing-stage molecule whose claimed properties have not been independently demonstrated.

Evidence for the parent compound BPC-157 is broader but remains weak by clinical-trial standards [whitehouse2025_commentary]. The corpus is concentrated in rodent injury models from a single research group (Sikiric and colleagues at the University of Zagreb), with a 2025 patent-and-literature review explicitly noting that concentration [jozwiak2025_review] and a 2025 commentary from the originating group restating its mechanism framework [sikiric2025_comment]. Recent narrative and systematic reviews in independent orthopaedic and sports-medicine journals uniformly characterize the human evidence as insufficient to support clinical practice and frame BPC-157 use as off-label and investigational at best [mcguire2025_review; vasireddi2025_systematic_review; mayfield2026_primer].

By analogy and by direct review, PDA has not met a clear evidence threshold for broad 503A use. RonanRx documents the substance so physician-submitted requests can be evaluated against the absence of PDA-specific peer-reviewed characterization data, the BPC-157-related FDA review posture, and patient-specific rationale [fda_category2_bulks, fda503a].

Major Pentadeca Arginate (PDA) Clinical Studies

Study	Design	Participants	Duration	Finding
Vasireddi et al. (2025, HSS J), Emerging Use of BPC-157 in Orthopaedic Sports Medicine: A Systematic Review	Systematic review of the BPC-157 literature for orthopaedic sports-medicine applications	—	—	Concludes that human evidence for BPC-157 is insufficient to support clinical use; the bulk of supporting data comes from rodent studies, and the regulatory status precludes routine compounding [vasireddi2025_systematic_review]. PDA is not specifically addressed in PubMed-indexed work.
McGuire et al. (2025, Curr Rev Musculoskelet Med), Regeneration or Risk? A Narrative Review of BPC-157 for Musculoskeletal Healing	Narrative review of BPC-157 musculoskeletal-healing literature	—	—	Frames BPC-157 use as off-label and investigational; flags the absence of controlled human safety and efficacy data and the regulatory ambiguity for compounding [mcguire2025_review]
Józwiak et al. (2025, Pharmaceuticals), Multifunctionality and	Literature and patent review of BPC-157	—	—	Catalogs the reported indications and mechanisms; explicitly notes the concentration of the literature

Study	Design	Participants	Duration	Finding
Possible Medical Application of the BPC-157 Peptide: Literature and Patent Review				within a single research group as a key limitation [jozwiak2025_review]
Sikiric et al. (2025, Pharmaceuticals), Commentary on Józwiak et al.	Commentary from the originating research group	—	—	Restates the nitric-oxide-system and angiogenesis mechanism framework for BPC-157; does not provide independent replication [sikiric2025_comment]
Seiwerth et al. (2021, Front Pharmacol), Stable Gastric Pentadecapeptide BPC-157 and Wound Healing	Narrative review of BPC-157 wound-healing literature, primarily rodent models	—	—	Summarizes reported effects on angiogenesis, granulation tissue, and connective-tissue repair in rat models; mechanism centered on NO system and VEGFR2 [seiwerth2021]
Cerovecki et al. (2010, J Orthop Res), Pentadecapeptide BPC-157 (PL 14736) improves ligament healing in the rat	Preclinical rat medial collateral ligament transection model	—	—	Reports improved biomechanical and histological ligament-healing parameters with BPC-157 vs control [cerovecki2010]
Japjec et al. (2021, Biomedicines), BPC-157 in disabled myotendinous junctions in rats	Preclinical rat myotendinous-junction injury model	—	—	Reports accelerated histological recovery of the myotendinous junction with BPC-157 [japjec2021]
Staresinic et al. (2022, Biomedicines), BPC-157 and striated, smooth, and heart muscle	Review consolidating rodent studies of BPC-157 across muscle types	—	—	Catalogs reported effects across muscle compartments; remains a single-group corpus [staresinic2022]
Bajramagic et al. (2024, Pharmaceuticals), BPC-157 and intestinal anastomosis healing in rats	Preclinical rat intestinal anastomosis review	—	—	Summarizes reported anastomotic-healing benefits in rodent models [bajramagic2024]
		—	—	

Study	Design	Participants	Duration	Finding
Vukusic et al. (2024, J Physiol Pharmacol), Duodenocolic fistula healing by BPC-157 in rats	Preclinical rat duodenocolic fistula model			Reports cytoprotection-based healing of duodenocolic fistula in rats with BPC-157 [vukusic2024]
Sikiric et al. (2024, Inflammopharmacology), Occlusion/occlusion-like syndrome cytoprotection studies	Narrative review of the originating group's vascular-occlusion cytoprotection literature	—	—	Frames BPC-157 effect as counteraction of multiorgan failure under vascular occlusion; rodent models [sikiric2024_review]
Mayfield et al. (2026, Am J Sports Med), Injectable Peptide Therapy: A Primer for Orthopaedic and Sports Medicine Physicians	Clinician-oriented primer on injectable peptide therapies including BPC-157	—	—	Characterizes BPC-157 and analogs as unapproved with limited published human data; counsels caution [mayfield2026_primer]
Mendias and Awan (2026, Sports Med), Safety and Efficacy of Approved and Unapproved Peptide Therapies for Musculoskeletal Injuries and Athletic Performance	Review of approved and unapproved peptide therapies for musculoskeletal injury	—	—	Classifies BPC-157 as unapproved with insufficient human safety and efficacy data; analog products including arginate-salt variants share the same evidence gap [mendias2026_review]

Pentadeca Arginate (PDA) Pharmacokinetics & Pharmacodynamics

Pharmacokinetics

No pentadeca arginate pharmacokinetic study has been published in PubMed-indexed journals as of 2026-05-11 [pubmed_search_pda_2026]. There are no published data on absorption, distribution, metabolism, elimination, half-life, or bioavailability for PDA in any species or route. The marketing claim of improved tissue penetration via the arginate counter-ion is not supported by published comparative pharmacokinetic data.

For the parent compound BPC-157, the reported pharmacokinetic profile is limited to inferences from rodent activity studies and small-molecule peptide-class assumptions; no comprehensive validated human PK study is available in PubMed.

Pharmacodynamics

No pentadeca arginate pharmacodynamic study has been published in PubMed-indexed journals as of 2026-05-11 [pubmed_search_pda_2026]. The pharmacodynamic claims attributed to PDA mirror those reported for BPC-157 in rodent models, modulation of the nitric-oxide system, angiogenesis effects via VEGFR2, and tissue-repair acceleration in injury models [seiwerth2021, sikiric2024_review], but they have not been independently characterized for PDA.

↓↑ Comparing Pentadeca Arginate (PDA) Formulations

There is no FDA-approved formulation of pentadeca arginate. Comparison to a reference product is not possible because no reference product exists. Marketing-channel PDA preparations vary in concentration, excipient profile, and reconstitution diluent; identity, potency, sterility, and endotoxin testing standards in those channels are heterogeneous and are not equivalent to USP <797> sterile-compounding standards [usp_797].

Comparison to BPC-157 acetate, the parent compound, is similarly limited by the absence of head-to-head published comparative data [usp_797]. Claims that the arginate salt form is superior to the acetate form on stability, solubility, or tissue distribution have not been demonstrated in any peer-reviewed PubMed-indexed publication [pubmed_search_pda_2026].

🌡 Pentadeca Arginate (PDA) Storage and Handling

No validated storage stability data have been published for pentadeca arginate. Marketing-channel product is typically supplied as a lyophilized powder for reconstitution with bacteriostatic water and refrigerated storage after reconstitution, but these recommendations are not supported by peer-reviewed stability-indicating analytical data [pubmed_search_pda_2026]. If RonanRx were ever to compound PDA following Category 1 status, storage and beyond-use dating would be governed by USP <797> and by validated stability data developed at the pharmacy [usp_797].

Pentadeca Arginate (PDA) Compounding & Operations

503A compounding

Physicians may submit patient-specific prescription requests for pharmacy review. For pentadeca arginate, certain preparations may be available now when clinically appropriate, lawfully prescribed, and approved by the dispensing pharmacy. Availability is determined case by case and may depend on patient-specific documentation, ingredient status, source qualification, formulation feasibility, state requirements, and pharmacist judgment. The review starts with the evidence constraint: The evidence base for pentadeca arginate is thinner than the evidence base for BPC-157. A targeted PubMed search found no peer-reviewed PDA-specific studies, so claims about improved stability, potency, or tissue penetration remain marketing hypotheses rather than published findings.

This ingredient is part of an evolving FDA review process. RonanRx is monitoring FDA's PCAC process and any subsequent agency action. This ingredient is part of an evolving FDA review process for peptide-related bulk substances, with review anchored by the closely related BPC-157 record. Availability may change after FDA review, PCAC discussion, final agency action, or state-board guidance. For pentadeca arginate, RonanRx ties that monitoring to the evidence limits described above and to any patient-specific documentation submitted by the prescriber.

Valid patient-specific prescription required. Supporting clinical rationale may be requested. Compounded medications are not FDA-approved. No consumer self-ordering, no office stock, no bulk dispensing. Requests for pentadeca arginate are reviewed before any preparation is made or released. The patient-specific pharmacy route is especially important when the published PDA record is nearly absent. It keeps a marketing claim about an arginate salt from becoming a consumer product claim without prescriber documentation and pharmacist review.

Pharmacist review

For pentadeca arginate, the pharmacist review starts before any preparation is made. Valid patient-specific prescription required. Supporting clinical rationale may be requested. The pharmacist reviews ingredient status, sourcing, formulation feasibility, state requirements, patient-specific documentation, and whether dispensing is appropriate case by case.

Quality and traceability

If a pentadeca arginate preparation is approved after pharmacy review, RonanRx applies source documentation, formulation records, lot traceability, release checks, and storage controls appropriate to the actual dosage form. Research-use vial storage practices do not substitute for pharmacy-assigned storage, beyond-use dating, sterility controls when applicable, or recallable batch records.

Cold chain

If a pentadeca arginate preparation is approved after pharmacy review, RonanRx applies source documentation, formulation records, lot traceability, release checks, and storage controls appropriate to the actual dosage form. Research-use vial storage practices do not substitute for pharmacy-assigned storage, beyond-use dating, sterility controls when applicable, or recallable batch records.

Frequently Asked Questions About Pentadeca Arginate (PDA)

Can physicians request pentadeca arginate through RonanRx?

Physicians may submit patient-specific prescription requests for pharmacy review. Certain preparations may be available now when clinically appropriate, lawfully prescribed, and approved by the dispensing pharmacy. Availability is determined case by case. Compounded medications are not FDA-approved, and no consumer self-ordering, office stock, or bulk dispensing is offered.

Is PDA the same as BPC-157?

PDA is marketed as the same 15-amino-acid sequence as BPC-157, formulated as an arginate (arginine) salt rather than the more common acetate salt. The marketing claim is that the arginate form is more stable and better absorbed [pubmed_search_pda_2026]. That claim has not been demonstrated in any peer-reviewed PubMed-indexed publication.

What does the published evidence on PDA actually show?

A PubMed search for 'pentadeca arginate' on 2026-05-11 returned zero results [pubmed_search_pda_2026]. There are no published peer-reviewed pharmacokinetic, stability, safety, or efficacy studies of PDA. Almost all PDA marketing claims rely on extrapolation from rodent studies of the parent compound BPC-157.

Does PDA have FDA approval for anything?

No. PDA has no FDA approval for any indication. There is no Prescribing Information, no USP monograph, and no FDA-approved manufactured product [fda_category2_bulks].

What about the BPC-157 research from Croatia, doesn't that support PDA?

The BPC-157 preclinical literature is broad in topic but narrow in source, most of it comes from a single research group at the University of Zagreb, in rodent injury models, without independent replication at scale. A 2025 patent-and-literature review explicitly highlighted that concentration [mayfield2026_primer; mendias2026_review; pubmed_search_pda_2026]. Independent narrative and systematic reviews in 2025-2026 emphasize that human evidence remains insufficient, and PDA itself has no published research of its own [jozwiak2025_review; mcguire2025_review; vasireddi2025_systematic_review].

If a patient has already been using PDA from a research-peptide source, what should they do?

Discuss the exposure with a treating clinician. There is no validated PDA-specific monitoring panel, but a clinical assessment for injection-site reactions, hypersensitivity, and any unexpected systemic signs is appropriate, and the exposure should be documented in the medical record [pubmed_search_pda_2026].

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How to Access Pentadeca Arginate (PDA)

Compounded Pentadeca Arginate (PDA) is dispensed under 503A on a patient-specific prescription. Depending on your role, the next step looks different.

FOR PRESCRIBING CLINICIANS

Offer this medication

A pharmacist will follow up within two business days. We'll cover state availability, supported formulations, and what integration looks like for your clinic.

ronanrx.com/request-partnership-call

PATIENT WITH A DOCTOR

Receive your prescription

If your doctor has prescribed Pentadeca Arginate (PDA), sign up so we can prepare and ship your medication. The signup wizard collects intake and connects you to the prescribing workflow.

ronanrx.com/patients

PATIENT WITHOUT A DOCTOR

Find a partner clinic

RonanRx prescribes through partner clinics — we don't initiate prescriptions on this site. Read how the referral process works and how to find a partner clinic in your state.

ronanrx.com/find-clinic

Other compounds RonanRx makes

This monograph is one of many in the RonanRx formulary. Every compound below is prepared under 503A on a patient-specific prescription. Browse the full catalog at ronanrx.com/medications and ronanrx.com/peptides, or scan the codes at right for each index.

Medications

Peptides

MEDICATIONS (40)

Alpha-Lipoic Acid (ALA) — Antioxidant & mitochondrial
Coenzyme Q10 (CoQ10) — Antioxidant & mitochondrial
Glutathione — Antioxidant & mitochondrial
NAD+ / NMN — Antioxidant & mitochondrial
Compounded Topical Anesthetics (BLT, LET) — Dermatology
Topical Minoxidil — Dermatology
Topical Tretinoin — Dermatology
Compounded Magnesium — Energy & nutritional
Cyanocobalamin — Energy & nutritional
High-Dose Vitamin D — Energy & nutritional
Hydroxocobalamin — Energy & nutritional
Iron (Compounded) — Energy & nutritional
L-Carnitine — Energy & nutritional
Methylcobalamin (B12) — Energy & nutritional
Methylfolate — Energy & nutritional
Anastrozole — Hormone optimization
Clomiphene & Enclomiphene — Hormone optimization
DHEA — Hormone optimization
Estradiol — Hormone optimization
Estriol — Hormone optimization
Human Chorionic Gonadotropin (HCG) — Hormone optimization
Pregnenolone — Hormone optimization
Progesterone — Hormone optimization
Testosterone — Hormone optimization
Compounded Metformin — Metabolic & weight
Compounded Semaglutide — Metabolic & weight
Compounded Tirzepatide — Metabolic & weight
Lipotropic Injection (MIC, MICC) — Metabolic & weight
Low-Dose Naltrexone (LDN) — Metabolic & weight
Naltrexone-Bupropion Combination — Metabolic & weight
Topiramate — Metabolic & weight
Bremelanotide / PT-141 — Sexual health
Compounded Sildenafil — Sexual health
Compounded Tadalafil — Sexual health
Trimix Injection — Sexual health
Compounded Gabapentin — Sleep & recovery
Compounded Melatonin — Sleep & recovery
Compounded T3 (Liothyronine) — Thyroid
Compounded T3/T4 Combinations — Thyroid
Compounded T4 (Levothyroxine) — Thyroid

PEPTIDES (21)

Sermorelin — Available now

Tesamorelin — Available now

AOD-9604 — Growth-hormone axis (under FDA review)

CJC-1295 — Growth-hormone axis (under FDA review)

GHRP-2 / GHRP-6 — Growth-hormone axis (under FDA review)

Hexarelin — Growth-hormone axis (under FDA review)

Ipamorelin — Growth-hormone axis (under FDA review)

MK-677 / Ibutamoren — Growth-hormone axis (under FDA review)

5-Amino 1MQ — Metabolic & longevity (under FDA review)

Epitalon / Epithalon — Metabolic & longevity (under FDA review)

MOTS-C — Metabolic & longevity (under FDA review)

Thymosin Alpha-1 / Thymalin — Metabolic & longevity (under FDA review)

DSIP, Delta Sleep-Inducing Peptide — Neuro & cognitive (under FDA review)

Selank — Neuro & cognitive (under FDA review)

Semax — Neuro & cognitive (under FDA review)

Vasoactive Intestinal Peptide (VIP) — Neuro & cognitive (under FDA review)

BPC-157 — Tissue repair (under FDA review)

KPV — Tissue repair (under FDA review)

LL-37 — Tissue repair (under FDA review)

Pentadeca Arginate (PDA) — Tissue repair (under FDA review)

TB-500 / Thymosin Beta-4 — Tissue repair (under FDA review)