Real-World Use and Tolerability of BPC-157:

An Observational Analysis of 619 Self-Reported User and Clinician Survey Responses

Peptide Safety Initiative

April 13, 2026

Abstract

Background. BPC-157 (Body Protective Compound-157) is a synthetic 15–amino-acid peptide derived from a sequence in human gastric juice. It is used extensively outside the conventional regulatory pathway for musculoskeletal and gastrointestinal complaints, despite the near-total absence of controlled human trials. No published prospective cohort has characterized how BPC-157 is actually being used, at what doses and durations, or what adverse events users encounter in real-world settings.

Methods. A voluntary online survey was distributed to self-identified BPC-157 users and to peptide-prescribing clinicians through the Peptide Safety Initiative channel at peptidesafetyinitiative.com/bpc-157. The survey collected respondent role, demographics, indication, route, duration, dose, frequency, peptide source, co-administered substances, a structured adverse-event checklist, discontinuation status, and a single-item self-rated safety score (0–10). Free-text fields captured goals, outcomes, and additional clinical context. Responses with a completion flag were analyzed.

Results. 619 completed responses were analyzed (613 self-users, 6 peptide-prescribing clinicians). Users had a mean age of 54.2 years (range 19–82), were 54.0% male, and were predominantly from the United States (88% of respondents providing a country). Injection was the dominant route (92.0%); oral use accounted for 6.4%. Median dose was 500 mcg per administration (IQR 500–1,000 mcg), dosed daily in 62% of users, for a median duration of 8.7 weeks (IQR 6.0–16.0). Primary goals were musculoskeletal/injury (65.6%), inflammation/pain (24.6%), and gastrointestinal (14.5%). Research-supply material was the most common source (63.5%), followed by compounding pharmacy (12.2%). Free-text outcomes were classified as positive in 81.8% of respondents and as negative/no-effect in 1.3%. In the structured adverse-event checklist, injection-site reactions were the most commonly reported event (9.8% of injection users), followed by gastrointestinal distress (3.4%), blood-pressure changes (3.7%), swelling/edema (2.6%), mood instability (1.7%), hypoglycemia-like symptoms (1.5%), and tachycardia/palpitations (1.0%). Four users (0.7%) reported discontinuation due to adverse effects, including one histamine-type reaction and one case of worsened inflammation. Mean self-rated safety was 9.3/10 (median 10).

Conclusions. Within the substantial limitations of a self-selected, unblinded, retrospective survey with no control arm and no independent verification of substance identity, BPC-157 users in this cohort reported high subjective benefit and a low rate of serious adverse events, with injection-site reactions as the dominant tolerability signal. The dominance of research-supply sourcing and the absence of routine lab or imaging confirmation underscore both the scale of real-world BPC-157 use and the urgent need for formal pharmacokinetic, safety, and efficacy studies. These data are hypothesis-generating, not confirmatory, and should be interpreted alongside preclinical and limited clinical literature rather than as evidence of causal benefit or safety.

1. Background and Rationale

BPC-157 is a pentadecapeptide (sequence GEPPPGKPADDAGLV) originally identified within a protective fraction of human gastric juice. Preclinical studies across multiple animal models report accelerated healing of tendon, ligament, muscle, bone, gut mucosa, and peripheral nerve injury, together with effects on nitric oxide signaling, growth-factor expression, and vascular permeability. The peptide has not received marketing authorization from the U.S. Food and Drug Administration or the European Medicines Agency. In late 2023, BPC-157 was placed on the FDA's 503A bulk drug substance "Category 2" list following a review of stability and safety data submitted to the Pharmacy Compounding Advisory Committee.

Despite the limited regulatory footprint, BPC-157 is now used at scale by individuals seeking tendon and ligament recovery, post-surgical rehabilitation, inflammatory complaints, and gastrointestinal symptoms. Access pathways include compounding pharmacies where permitted, clinicians working outside the 503A framework, and research-chemical suppliers selling material "not for human consumption." No published peer-reviewed prospective cohort has characterized how BPC-157 is actually being used in the community, at what doses and durations, alongside which other substances, or what adverse events users are encountering.

The Peptide Safety Initiative was established to collect structured real-world use data from the community of BPC-157 users and prescribing clinicians, with the goal of informing both regulatory engagement and future formal research. This report presents the first round of that data collection.

2. Methods

2.1 Study design

This was a voluntary, anonymous, cross-sectional online survey of self-identified BPC-157 users and peptide-prescribing clinicians. No intervention was administered, no clinical data were collected directly from medical records, and no biological samples were obtained. The study is observational and descriptive.

2.2 Recruitment and setting

The survey was hosted on Typeform and linked from peptidesafetyinitiative.com/bpc-157. The survey was promoted through The Hunter Williams Podcast, the Hunter's Health Hacks newsletter, and partner peptide-education channels. Recruitment is therefore a convenience sample with a known selection bias toward individuals already engaged with peptide-focused educational content. All respondents self-selected. No financial incentive was offered. Respondents provided consent via a checkbox before entering either the user or clinician branch of the survey.

2.3 Instrument

The survey routed respondents into one of two branches based on self-identified role: (a) "General user/patient/self-user" or (b) "Provider who prescribes peptides." Both branches collected structured data on indication, route, duration, dose, dosing frequency, peptide source, and co-administered medications or supplements, followed by a structured adverse-event checklist covering injection-site reactions, edema/fluid retention, hypoglycemia-like symptoms, tachycardia/palpitations, mood instability, gastrointestinal distress, and blood-pressure changes. Free-text fields captured primary goal, results experienced, side-effect detail if discontinued, and any additional context including lab values, imaging, or surgical recovery narratives. Safety was assessed using a single 0–10 Likert-style item ("how would you rate the safety of BPC-157").

The user branch additionally collected age, sex assigned at birth, height, weight, ethnicity, and country of residence. The clinician branch collected practitioner type, country of practice, years of peptide experience, number of patients treated with BPC-157, and whether the clinician had personally self-administered BPC-157.

2.4 Data handling and analysis

Responses were exported as CSV from Typeform. Only responses flagged as "completed" were retained for analysis (n=619 of 624 submissions; 5 partial responses excluded). Free-text dose entries were parsed to a numeric micrograms-per-administration value using a rule-based extractor that recognized "mcg," "mg," "microgram," and decimal notations; implausible values (<10 mcg or >20,000 mcg per dose) were excluded from dose-distribution summaries as likely data-entry errors. Free-text duration entries were parsed to weeks using a rule-based extractor recognizing days, weeks, months, and years. Free-text primary goals were classified into non-exclusive indication categories using keyword matching (musculoskeletal/injury; inflammation/pain; gastrointestinal; neurologic/cognitive; skin/wound; recovery/general wellness). Free-text outcomes were classified into positive, mixed, negative/no-effect, and unclear categories using a keyword-based sentiment rule; the "unclear" category includes responses that were too short, too ambiguous, or described the protocol without describing an outcome.

The 0–10 safety scale was shifted from the Typeform 1-indexed export (range 1–11) to the intended 0–10 scale. Categorical variables are presented as counts and percentages; continuous variables as mean, median, standard deviation, and interquartile range. Missing responses are reported per item and denominators are specified for each rate. Subgroup tabulations are presented for the injection subgroup and by duration and dose quartile where n permits. No inferential statistics are reported: given the single-arm, self-selected design, p-values or confidence intervals would overstate what this data can support.

2.5 Ethical considerations

Respondents consented to participation before entering the survey. No personally identifying information is reproduced in this report; email addresses collected for optional follow-up were handled separately from the analytic dataset. Because no intervention was administered and the

analysis is descriptive, the study does not constitute human-subjects research requiring IRB oversight under common U.S. definitions, but the authors note that all findings should be read as community-collected experience data rather than clinical evidence.

3. Respondent Characteristics

Of 619 completed responses, 613 (99.0%) identified as general users/self-users and 6 (1.0%) as peptide-prescribing clinicians. An additional 5 clinician responses were flagged as partial and excluded from analysis. Quantitative analyses in Sections 4–6 describe the user cohort. Clinician data are summarized narratively in Section 7.

3.1 Demographics (users, n=613)

Characteristic	Value
Age, mean (SD)	54.2 (10.5)
Age, median [IQR]	54 [47–61]
Age range	19–82
Sex: Male	331 (54.0%)
Sex: Female	275 (44.9%)
Sex: Intersex / prefer not to say / missing	7 (1.1%)
Ethnicity: White	539 (87.9%)
Ethnicity: Hispanic or Latino	28 (4.6%)
Ethnicity: Black or African American	10 (1.6%)
Ethnicity: Asian	9 (1.5%)
Ethnicity: Other / prefer not to say / missing	27 (4.4%)
Country: United States	384 of 437 providing country (87.9%)
Country: Australia	19 (4.3%)
Country: Canada	15 (3.4%)
Country: Other	19 (4.3%)

The age distribution was skewed toward middle-aged and older adults, consistent with a population seeking musculoskeletal recovery and metabolic support. 60.6% of users were between 40 and 59 years old; 30.8% were 60 or older. The male-to-female ratio (54.0%:44.9%) is notably more balanced than is often assumed for peptide-user populations, and the female representation (n=275) is sufficient to support a sex-stratified read of the primary findings.

3.2 Timing of data collection

All responses were collected in the weeks preceding the analysis date of April 13, 2026. No respondent contributed more than one response. Because the survey did not capture time-since-first-exposure as a distinct variable, duration of use reflects the user's own description of their BPC-157 course rather than calendar time elapsed.

4. Usage Patterns

4.1 Route of administration

Route	n	%
Injection (subcutaneous or intramuscular)	564	92.0%
Oral	39	6.4%
Nasal spray	2	0.3%
Other	1	0.2%
Missing	7	1.1%

Injection was overwhelmingly dominant. This pattern is consistent with community-level education emphasizing subcutaneous injection near the site of injury, and with the limited commercial availability of oral BPC-157 formulations. Oral use was reported by 6.4% of respondents, a non-trivial minority whose outcomes and tolerability are summarized separately where sample size permits.

4.2 Dose per administration

Exact numeric doses were provided by 371 respondents (60.5%) after cleaning. Median dose per administration was 500 mcg (IQR 500–1,000 mcg; mean 1,600 mcg, inflated by a small number of high-dose respondents). An additional 290 respondents selected "Please specify mcg/mg per dose" without providing a numeric dose, and 316 respondents selected a Low/Medium/High category rather than entering a number.

Dose range per administration	n	% of 371 with parsed dose
<250 mcg	17	4.6%
250–499 mcg	70	18.9%
500–1,000 mcg	212	57.1%
1,001–2,000 mcg	19	5.1%
2,001–5,000 mcg	26	7.0%
>5,000 mcg	27	7.3%

Interpretive note. A 500-mcg, once-daily convention has clearly emerged in the community, consistent with guidance commonly circulated in peptide-education materials. The right tail of the distribution (>5,000 mcg per administration, 7.3%) should be interpreted with caution: several of these entries likely reflect total weekly exposure, dose-misstatement, or the use of multi-site

injection protocols. The survey instrument did not disambiguate per-injection from per-day from per-week dosing in free text, which is a limitation for any future pharmacologic inference.

4.3 Dosing frequency

Frequency	n	%
Daily	378	61.7%
5 times per week	149	24.3%
2–3 times per week	52	8.5%
Weekly	6	1.0%
Other	22	3.6%
Missing	6	1.0%

4.4 Duration of use

Duration was parseable to a numeric value for 441 respondents (72.0%). Median duration was 8.7 weeks (IQR 6.0–16.0 weeks; mean 18.5 weeks, inflated by long-term users).

Duration	n	% of 441 parsed
<4 weeks	56	12.7%
4–7 weeks	70	15.9%
8–11 weeks	128	29.0%
12–25 weeks	135	30.6%
26–51 weeks	18	4.1%
52+ weeks (≥1 year)	34	7.7%

The 8- to 12-week "cycle" is the modal pattern, consistent with community protocols that recommend a defined course followed by a break. However, 11.8% of respondents reported continuous use beyond 26 weeks, including 34 users with more than a year of exposure. This long-duration subgroup is important for tolerability assessment and is revisited in Section 6.

4.5 Source of peptide

Source	n	%
Research supply ("not for human consumption" labeling)	389	63.5%
Compounding pharmacy	75	12.2%

Source	n	%
Clinic administered	14	2.3%
Other	34	5.5%
Missing	101	16.5%

Interpretive note. Research-supply material outnumbered compounding-pharmacy material by more than 5:1 in this cohort. This has two implications. First, any tolerability signal in these data reflects not only BPC-157 itself but also whatever impurities, residual solvents, endotoxin, or non-BPC peptide content may be present in a given research-supply lot. Second, regulatory frameworks that focus exclusively on compounding pharmacies are engaging with a small fraction of the actual BPC-157 supply chain in use today. These data do not speak to the purity or identity of the material any individual respondent received, and no supply was independently verified.

4.6 Co-administered substances

565 users (92.2%) provided a free-text list of other medications or supplements taken concurrently with BPC-157. The most commonly named co-administered peptides and small molecules are summarized below (non-exclusive; one respondent may appear in multiple rows).

Co-administered compound or class	Mentions	% of 565 reporting a stack
TB-500 / thymosin beta-4	135	23.9%
GLP-1 / GIP / glucagon agonists (tirzepatide, retatrutide, semaglutide, mazdutide)	61	10.8%
GHK-Cu	50	8.8%
Growth hormone secretagogues (CJC, ipamorelin, sermorelin, tesamorelin)	38	6.7%
KPV	28	5.0%
NAD+	27	4.8%
MOTS-c	18	3.2%
SS-31 (elamipretide)	11	1.9%

The frequency of TB-500 co-administration (nearly one-quarter of stackers) is particularly relevant: in the free-text discontinuation descriptions, one respondent reported a histamine-type reaction that occurred with BPC-157 alone or combined with TB-500. Attribution in the setting of concurrent peptide use is not possible from survey data alone but is a signal worth capturing in any future prospective protocol.

5. Indications and User-Reported Outcomes

5.1 Primary goal for use

Free-text primary goals were provided by 448 respondents and classified into non-exclusive categories. A single respondent could be assigned to multiple categories (e.g., "healing joint inflammation and gut repair" counts in both musculoskeletal and gastrointestinal).

Goal category	n	% of 448 with goal text
Musculoskeletal / injury (tendon, joint, ligament, surgery, fracture)	294	65.6%
Inflammation and pain	110	24.6%
Gastrointestinal (IBS, ulcers, Crohn's, reflux, leaky gut)	65	14.5%
Recovery / general wellness / longevity	37	8.3%
Neurologic / cognitive / mood	5	1.1%
Skin / wound / scar	5	1.1%
Other or unspecified	93	20.8%

Musculoskeletal and inflammation-related indications dominate. The gastrointestinal category, while smaller, is notable because it is the indication most consistently supported by preclinical models of BPC-157 and is the context in which the peptide was originally discovered.

5.2 User-reported outcome classification

Free-text outcome descriptions were provided by 605 users (98.7%) and classified using a keyword-based sentiment rule. Classification reflects the user's own description; no independent verification of outcomes was possible.

Outcome classification	n	% of 605 with outcome text
Positive (improvement, resolution, reduction of symptoms)	495	81.8%
Mixed (some improvement alongside no effect or worsening in another domain)	19	3.1%
Negative or no effect	8	1.3%
Unclear (too brief, describes protocol, or "too early to tell")	83	13.7%

Interpretive note. An 82% positive rate from a self-selected, unblinded cohort who chose to complete a BPC-157 survey is not evidence of efficacy. It establishes that among users engaged

enough to take a 10-minute survey, the subjective experience was predominantly favorable, and it defines an outcome distribution against which formal controlled studies can be compared. The 1.3% negative/no-effect rate is meaningfully lower than would be expected from a natural-history comparator for musculoskeletal symptoms, but the absence of a control arm, the absence of blinding, and strong self-selection mean a placebo effect, regression to the mean, and non-response bias cannot be separated from any specific BPC-157 effect.

5.3 Representative outcome narratives

A random sample of user-provided outcome descriptions is reproduced below with light paraphrase to remove identifiable detail. These are illustrative of the type of observation respondents made and are not selected to support any particular claim. Imaging or laboratory documentation, where mentioned, is user-reported and not independently confirmed.

- A user with a decades-old hip injury reported approximately 95% symptomatic healing after 10 weeks of 500 mcg daily subcutaneous injection, with no regression over the following two years.
- A user recovering from anterior cruciate ligament reconstruction reported faster return of range of motion compared to prior ligament recovery experience, on 12 weeks of 500 mcg daily subcutaneous.
- A user with tendonitis reported a pain-scale reduction from 8/10 to 1–2/10 over the course of 8 weeks of daily injection.
- A user with chronic plantar fasciitis reported complete pain resolution within 3 weeks of 500 mcg daily injection near the affected area.
- A user with inflammatory bowel symptoms reported improved bowel regularity and reduced joint soreness on oral BPC-157 combined with KPV.
- A user reported recovery from a ruptured brain aneurysm that treating physicians described as unexpected; the user attributes a component of the recovery to BPC-157, though no causal inference can be drawn from a single-subject narrative.
- A user reported stabilization of blood pressure and a reduction in antihypertensive medication requirement, framed as a positive effect by the user.
- A user reported "no noticeable difference" in chronic knee pain after 4 weeks and chose to continue the course before drawing a conclusion.
- A user with severe osteoarthritis reported that joint pain felt worse during the course and did not improve on discontinuation, framed as no benefit.

These narratives illustrate the dominant pattern in the data: a large majority of users describe a clear perceived benefit, a smaller fraction describe ambiguous or delayed responses, and a small number describe no benefit or worsening. The heterogeneity of indications, doses, durations, and concomitant protocols precludes any direct comparison between narratives.

6. Adverse Events and Tolerability

6.1 Structured adverse-event checklist

Respondents were asked a yes/no question for each of seven pre-specified adverse-event categories. Denominators differ across categories because of item-level missingness; the "answered" denominator is reported for each category alongside the rate.

Adverse event category	Reported yes	Answered (denominator)	Rate
Injection-site reaction	58	608	9.5%
Gastrointestinal distress (nausea, vomiting, diarrhea, abdominal pain)	21	576	3.6%
Blood-pressure change (hypertensive or hypotensive)	20	588	3.4%
Swelling, edema, fluid retention	13	507	2.6%
Mood instability (anxiety, irritability, mood swings)	9	584	1.5%
Hypoglycemia-like symptoms (shakiness, sweating, dizziness, confusion)	9	586	1.5%
Tachycardia or palpitations	5	562	0.9%
Discontinued due to adverse effect	4	574	0.7%

6.2 Injection-route subgroup

Because 92% of respondents used the injection route, and because injection-site reactions and route-associated events are concentrated in this subgroup, adverse-event rates were recalculated among injection users only (n=564).

Adverse event category	Reported yes	Answered	Rate (injection users)
Injection-site reaction	55	563	9.8%
Gastrointestinal distress	18	534	3.4%
Blood-pressure change	20	545	3.7%
Swelling, edema, fluid retention	12	468	2.6%
Mood instability	9	541	1.7%
Hypoglycemia-like symptoms	8	544	1.5%
Tachycardia or palpitations	5	521	1.0%

Adverse event category	Reported yes	Answered	Rate (injection users)
Discontinued due to adverse effect	3	531	0.6%

Interpretive note. The only adverse-event signal that exceeds a background single-digit rate is injection-site reaction at 9.8% of injection users. This rate is broadly consistent with what would be expected from any subcutaneous injection protocol involving compounded peptide, and is not necessarily specific to BPC-157. Without a route-matched control, the contribution of BPC-157 itself versus injection technique, reconstitution solvent, or material purity cannot be separated. The blood-pressure change category (3.4–3.7%) is heterogeneous in direction: free-text descriptions include both reductions (several respondents described being able to lower antihypertensive medication) and elevations. The edema category had the highest item-level missingness (106 missing of 613) and may be systematically under-ascertained.

6.3 Discontinuation and notable narratives

Only 4 of 574 respondents (0.7%) reported discontinuing BPC-157 due to adverse effects. Their reasons, reproduced verbatim from the survey with minor formatting, are:

- "GI upset and diarrhea."
- "Shingles." (causality to BPC-157 is not established; shingles reactivation has multiple triggers including stress and immunosuppression)
- "Increased inflammation, poor sleep, worsening of psoriatic arthritis symptoms."
- "Histamine reaction. Severe itchiness of hands and feet. It happens within 5 minutes of injecting and lasts about 30 minutes. This only happens with BPC alone or when combined with TB-500."

The histamine-type reaction is the most clinically notable of the four. The temporal pattern (onset within 5 minutes, duration ~30 minutes) is consistent with a mast-cell-mediated reaction. The respondent reported that the reaction occurred with BPC-157 alone and with BPC-157 + TB-500, but not with other peptides, suggesting the reaction is attributable to BPC-157 itself rather than to the co-administered peptide or to a shared reconstitution solvent. This pattern should be specifically probed in any future prospective protocol.

Across the broader free-text field, a separate respondent who had not discontinued described mild diarrhea that resolved spontaneously; another described transient headache and backache over five days, which resolved with a dose reduction. No respondent reported hospitalization, anaphylaxis, or any event meeting a conventional serious-adverse-event threshold attributable to BPC-157 during the survey period.

6.4 Self-rated safety

Respondents rated BPC-157 on a 0–10 safety scale. The mean rating was 9.31 (SD 1.07), median 10. The distribution was heavily left-skewed.

Rating (0–10)	n	% of 607 rating
10 (maximum safety)	320	52.7%
9	224	36.9%
8	29	4.8%
7	19	3.1%
6	7	1.2%
5	1	0.2%
4	5	0.8%
3	1	0.2%
0	1	0.2%

Mean safety rating did not differ meaningfully by route of administration (injection 9.34, oral 9.00, nasal 9.00). Ratings were consistent across dose quartiles and duration categories. A single respondent assigned a rating of 0; their free-text entries did not specify an attributable event and this rating should be interpreted as a potential outlier rather than as evidence of a severe adverse outcome.

7. Clinician Respondents

Six clinicians completed the prescribing-clinician branch of the survey; an additional five clinician responses were flagged as partial and excluded. Given the small sample, clinician findings are summarized narratively rather than tabulated with rates.

Respondents all practiced in the United States. Peptide experience ranged from 1–5 years (n=2) to 5+ years (n=3). Reported BPC-157 patient experience ranged widely, from a single patient to approximately 1,000 patients; cumulative clinician-reported BPC-157 exposure across the six respondents exceeds 1,400 patient-courses. All five clinicians reporting a dominant route used injection. Clinician-stated doses clustered at 250–500 mcg per site, with one clinician describing a 0.5–2 mg range titrated to the clinical context.

Reported clinical indications spanned the same domains as the user cohort: acute and chronic musculoskeletal injury including tendon and ligament tears, post-surgical recovery, chronic pain with and without orthopedic imaging correlate, inflammatory arthritis, gastritis, inflammatory bowel disease, post-infectious microvascular symptoms (described by one clinician as post-COVID "Raynaud's-like" presentations), and stroke or traumatic brain injury rehabilitation via nasal administration.

Clinician-observed adverse events were rare: 2 of 5 answering clinicians reported observing injection-site reactions, 1 of 5 reported observing a hypoglycemia-like episode, and 1 of 5 reported observing a blood-pressure fluctuation. No clinician reported observing edema, tachycardia, mood instability, or gastrointestinal adverse events attributable to BPC-157 in their practice. Clinician safety ratings (0–10) were 10, 10, 10, 9, and 8, with a mean of 9.4.

Representative clinician observations (paraphrased and de-identified):

- A primary-care integrative clinician with approximately 1,000 BPC-157 patient-courses described consistent symptomatic improvement across subcutaneous, oral, and nasal routes, with particular emphasis on chronic pain and inflammatory bowel disease populations. The clinician described multiple IBD patients able to reduce or discontinue immunosuppressive therapy while on combination peptide protocols that included BPC-157, with stability confirmed on subsequent colonoscopy.
- A functional-medicine clinician described a cohort of approximately 150 patients with mixed results, observing that outcomes were best in patients who were simultaneously hormonally optimized, nutritionally replete, physically active, and engaged in resistance training. This observation, if replicated, would be consistent with a picture in which BPC-157 acts as an adjunct to, rather than a substitute for, standard rehabilitation principles.
- A sports-focused clinician with ~250 patients reported faster post-workout recovery and faster post-operative healing but explicitly noted that their practice does not collect the kind of objective outcome data that would permit a quantitative comparison to non-BPC controls.

Interpretive note. Six clinicians cannot support any generalizable claim about clinical experience with BPC-157. What the clinician subset does establish is that individual practitioners carrying multi-hundred-patient cumulative experience have not observed the kind of systematic adverse-event signal that would trigger mandatory reporting in a conventional drug-surveillance framework. This is consistent with the user-cohort findings but should be read as an absence of observed signal rather than as evidence of systemic safety. A formal clinician-focused adverse-event registry, with pre-specified event definitions and mandatory reporting, would be considerably more informative than voluntary survey collection.

8. Discussion

8.1 Principal findings

This is, to the authors' knowledge, the largest structured real-world dataset on BPC-157 use published to date. Three principal findings emerge.

First, BPC-157 is being used in the community at scale, predominantly by middle-aged adults, predominantly via subcutaneous injection, at a modal dose of 500 mcg daily for a median of approximately nine weeks, predominantly via research-supply material rather than compounding-pharmacy material. The consistency of this pattern across 613 independent respondents suggests that community education has converged on a reproducible dosing convention, even in the absence of formal pharmacokinetic or dose-ranging data in humans.

Second, self-reported subjective benefit is high (82% positive), with musculoskeletal and gastrointestinal indications dominating. Given the unblinded, self-selected, retrospective nature of the data, this finding cannot be interpreted as evidence of efficacy. It does, however, constrain the effect-size range that a future placebo-controlled trial would need to detect to be credible: if the true BPC-157 effect over placebo is small, a high-placebo-response population may obscure it; if the effect is large, it should be separable even in a modestly sized controlled trial.

Third, the structured adverse-event signal is dominated by injection-site reactions (9.8% of injection users) with all other pre-specified adverse-event categories below 4%, and only four discontinuations due to adverse effects (0.7%). No respondent reported a serious adverse event meeting conventional thresholds during the survey window. The single most clinically notable adverse-event narrative is a histamine-type reaction with onset within minutes of injection, reported to recur across multiple administrations and to be specific to BPC-157. This pattern warrants pre-specified capture in any prospective protocol.

8.2 Comparison to prior literature

The preclinical BPC-157 literature is extensive but is dominated by rodent models, many of which are authored by a small number of research groups. Translational claims from this literature are not straightforward, both because of the limited number of independent replications and because of the relative paucity of pharmacokinetic data in primates. Published human data remain limited to small case series, one registered but unpublished Phase 1 safety study, and scattered case reports. The present cohort does not resolve this gap but provides the first community-scale read on the indications, routes, doses, and tolerability profile of real-world use. Major points of contact with prior literature are:

- The dominance of musculoskeletal and gastrointestinal indications mirrors the preclinical literature's emphasis on tendon/ligament/bone healing and gastric mucosal protection.
- The modal 500-mcg, once-daily dose corresponds to the lower end of doses commonly described in human case reports and in compounding-pharmacy protocols. The absence

of a clear dose-response signal in subjective outcome ratings in this dataset is consistent with a plateau effect but could equally reflect the limited granularity of self-report.

- The low rate of structured adverse events is consistent with the preclinical toxicology literature, which has not identified organ-level toxicity at doses substantially higher than those used here on a per-kilogram basis. This consistency should not be mistaken for evidence of human safety at scale.

8.3 Implications for regulatory engagement

Three implications are relevant to ongoing regulatory deliberations concerning BPC-157 and the 503A compounding framework.

First, a regulatory posture that focuses exclusively on compounding-pharmacy supply engages with approximately one-eighth of the BPC-157 supply chain in use today. Research-supply material outnumbers compounding-pharmacy material by more than 5:1 in this cohort. Any risk-management strategy that does not contemplate research-supply material will have limited population-level impact.

Second, the tolerability profile documented here, while not definitive, does not identify the kind of signal that would warrant classification alongside substances with known organ toxicity or addiction liability. The population-scale data argue for, rather than against, a regulated human-use pathway. A pathway that made clinically sourced, pharmacopoeial-grade BPC-157 available under clinician supervision would likely reduce population exposure to research-supply material of unverified identity and purity, and would create the surveillance infrastructure needed to detect rare adverse events that voluntary surveys cannot capture.

Third, the histamine-type reaction narrative underscores the need for post-market pharmacovigilance if a regulated pathway is established. Rare hypersensitivity events are below the resolution of a 619-respondent survey and can only be captured through mandatory adverse-event reporting tied to dispensation records.

8.4 Limitations

This study has substantial limitations that constrain the inferences that can be drawn.

- **Selection bias.** Respondents self-selected after exposure to peptide-focused educational content. Users experiencing severe adverse events, users who discontinued early and disengaged from the community, and users who found BPC-157 ineffective may be systematically underrepresented. This biases both the outcome distribution toward positive results and the adverse-event distribution toward lower rates.
- **Absence of a control arm.** No comparator (placebo, standard-of-care rehabilitation, watchful waiting) is available. Natural history alone accounts for much of the improvement expected in musculoskeletal injury and gastrointestinal inflammation over

the median nine-week observation window. Without a control, a specific BPC-157 effect cannot be separated from natural history, placebo, regression to the mean, concurrent care, and co-administered substances.

- **Absence of blinding.** Respondents knew they were using BPC-157 when they reported outcomes. Expectancy effects on pain, stiffness, mood, and subjective function are well documented and are expected to be large in a motivated community of users.
- **Recall bias.** Retrospective report of dose, duration, and adverse events is subject to memory distortion, especially for low-salience events that resolved spontaneously. The modal reported duration (8–12 weeks) may be more accurate than individual-respondent dates of onset.
- **Unverified substance identity and purity.** No respondent's material was independently tested. Research-supply material in particular has been shown in analytical surveys to vary substantially in actual BPC-157 content, racemic composition, residual solvents, and endotoxin. Adverse events attributed to BPC-157 may in some cases be attributable to impurities; conversely, outcomes attributed to BPC-157 may reflect exposure to less than the nominal dose.
- **Concurrent polypharmacy.** 92% of respondents reported co-administered substances, including TB-500 in nearly a quarter of cases and GLP-1 agonists in more than 10%. Attribution of outcomes or adverse events to BPC-157 specifically is not possible from this design.
- **Free-text parsing.** Dose, duration, and outcome sentiment were extracted using rule-based parsers. These parsers successfully categorized 60–98% of free-text responses depending on the field but may misclassify a minority of entries. Sensitivity analyses using alternative parsers did not change the principal findings but are not reported here.
- **Item-level missingness.** The edema item had 17% missingness, higher than any other adverse-event item; the reported 2.6% edema rate may underestimate true prevalence if non-responders were more likely to have experienced edema. Other items had <10% missingness.
- **Single-item safety rating.** The 0–10 safety scale has not been validated and is subject to strong central-tendency and acquiescence biases in a user-self-report context. It should be read as a summary of community sentiment, not as a pharmacovigilance instrument.
- **No longitudinal follow-up.** The survey captured a single cross-sectional snapshot. Delayed adverse events, durability of benefit, and post-discontinuation rebound are not captured.

8.5 Recommendations for future research

Three next-step studies would substantially expand the evidence base beyond what the present survey can offer:

- A prospective, registry-based observational study with clinician-verified indication, verified material source, and protocol-specified safety follow-up at 4, 12, and 26 weeks. A target enrollment of 2,000–5,000 participants would permit detection of adverse events at the 0.5% rate with reasonable precision.
- A randomized, placebo-controlled, double-blind trial in a single well-defined indication (e.g., chronic rotator cuff tendinopathy or post-surgical Achilles repair), using imaging and patient-reported outcome instruments. A sample size of 150–250 per arm should be adequate for a moderate effect size.
- An independent analytical survey of research-supply and compounded BPC-157 for identity, purity, and endotoxin. Without this, no clinical dataset can definitively attribute effects to BPC-157 itself.

9. Conclusions

In a cross-sectional survey of 613 self-reporting BPC-157 users and 6 peptide-prescribing clinicians, BPC-157 was used predominantly via subcutaneous injection at a modal dose of 500 mcg daily for a median of 8.7 weeks, overwhelmingly for musculoskeletal and inflammatory indications. 82% of users with outcome data described a subjective benefit; 1.3% described no effect or worsening. Structured adverse events were dominated by injection-site reactions (9.8% of injection users), with all other categories below 4%. Four users (0.7%) reported discontinuation due to adverse effects. Mean self-rated safety was 9.3 of 10.

These findings should not be interpreted as evidence of efficacy or safety. They should be interpreted as a structured, community-scale characterization of how BPC-157 is currently being used and what its real-world tolerability appears to look like from the user perspective. They support the case for formal prospective study and for a regulatory posture that contemplates the full BPC-157 supply chain rather than only the compounding-pharmacy subset.

10. Data Availability and Acknowledgments

The underlying anonymized dataset was collected through peptidesafetyinitiative.com/bpc-157. Requests for access to the de-identified analytic dataset for legitimate research purposes can be directed to the Peptide Safety Initiative. The authors acknowledge the 619 users and clinicians who contributed their time and experience, without which this analysis would not exist.

No pharmaceutical industry funding was received for this work. The authors have no financial interest in any BPC-157 product, manufacturer, or distributor.