



## 1 Foundational Principle

**A Correction is not a convenience tool, a reputation-management device, or a response to outside pressure.**

A Correction should be issued **only** when authors identify errors in their published work that have materially affected the scientific rigor of the work, the accuracy of the reported results, or the validity, clarity, or scope of the conclusions drawn, and where the article remains correctable rather than fundamentally unreliable.

A Correction may also be appropriate where a publisher or journal editor raises concerns and, after proper review by both parties, the issues are found to be remediable through a transparent published correction rather than through retraction or other editorial action.

**✘ Corrections should not be pursued lightly. They should not be issued merely because third parties are exerting pressure, because criticism is uncomfortable, or because minor imperfections are noticed that do not materially affect the scientific rigor, results, interpretation, or conclusions of the work.**

## 2 When a Correction Is Appropriate

**A Correction is generally appropriate when all of the following are true:**

- The published article contains one or more real errors.
- Those errors materially affect scientific rigor, reported results, interpretation, or conclusions, or otherwise require formal amendment of the scientific record.
- The core article remains sufficiently reliable to be corrected rather than withdrawn.
- The corrective action can be stated precisely and transparently.
- The authors are prepared to conduct a full re-review of the article to ensure the proposed Correction is complete and does not leave further unresolved errors behind.

A Correction may also be appropriate where editors identify correctable concerns and both authors and journal agree that a formal Correction is the most appropriate and proportionate course of action.

## 3 When a Correction Should Not Be Pursued

**⚠ A Correction should not be pursued:**

- For trivial typographical issues that do not affect scientific rigor, data interpretation, results, or conclusions.
- Solely because of third-party pressure, online commentary, or reputational concern.
- As a tactical attempt to “close” criticism without first determining whether the article is in fact fully correctable.
- Where the extent of the problem is still unknown.
- Where the reliability of the article may be fundamentally compromised.
- As a piecemeal exercise addressing only the most visible issue while leaving the rest of the article unchecked.

## 4 Core Ethical Requirement Before Proceeding

**If the criteria for a Correction are met, the authors should treat that moment as a mandatory opportunity to re-review the work in full.**

**✘ They should not limit themselves to the issue that first came to light.**

They should assume that any confirmed error may indicate the need for broader re-checking of surrounding text, methods, data presentation, references, internal consistency, and inferential claims.

A Correction should therefore be prepared only after a piece-by-piece reanalysis of the published work has been completed.



## 5 Required Re-Review and Reanalysis

**When a Correction is being considered under legitimate circumstances, authors should conduct a structured re-review of the published article, including the following:**

### 5.1 Textual Re-review

- Verify each factual statement.
- Check for overstatement of certainty, causality, significance, novelty, or generalizability.
- Ensure no sentence depends on data or assumptions that are being corrected.
- Confirm consistency across abstract, results, discussion, conclusions, and summaries.

### 5.2 Results Reanalysis

- Verify all numerical values.
- Ensure consistency across data sources (tables, figures, supplements, narrative).
- Reassess statistical outputs (significance, effect sizes, confidence intervals).
- Determine whether interpretation or conclusions require adjustment.

### 5.3 Methods Re-check

- Review eligibility criteria, sample sizes, and inclusion/exclusion logic.
- Confirm study design, cohorts, and settings.
- Verify statistical methods and definitions.
- Ensure alignment between described and actual procedures.

### 5.4 Figures and Tables Review

- Confirm accuracy of legends, labels, and units.
- Ensure consistency with underlying data and narrative text.
- Align supplementary materials with corrected content.

### 5.5 Logical Consistency Review

- Confirm methods support results.
- Confirm results support conclusions.
- Ensure no statement becomes misleading due to corrected elements.

### 5.6 Reference Integrity Review

**Authors should re-check the full reference list, not only the reference connected to the identified error.**

This review should include checking whether any cited references have been retracted at the time of submitting the Correction using the **ScienceGuardians™ DOI Retraction Checker**:  
<https://scienceguardians.com/docs/main/doi-retraction-checker-tool/>



If a cited study has been retracted, authors should independently assess whether continued citation is justified and whether clarification, limitation, contextualization, or replacement is necessary, using the **ScienceGuardians™ Ethical Guidelines for Independent Review and Citation of Retracted Studies**:



<https://scienceguardians.com/docs/main/ethical-guidelines-for-independent-review-and-citation-of-retracted-studies/>

### 5.7 Authorship-Level Review

All authors should:

- Review the error and full scope of the Correction.
- Confirm revised interpretation.
- Ensure awareness of all changes across the manuscript.

## 6 Escalation Obligation: When Correction Is No Longer Appropriate

**During the required re-review and reanalysis, authors may determine that the identified error is not isolated or that its impact extends beyond what can be responsibly addressed through a Correction.**

If, through this process, the authors conclude that:

- The scientific rigor of the work is materially compromised, or
- The reported results are no longer reliable, or
- The interpretation or conclusions drawn are no longer supported by the corrected data, or
- The extent of the issues indicates broader instability in the work

then a Correction is no longer the appropriate mechanism.

✦ In such cases, authors should seriously consider initiating a **voluntary retraction** and promptly notify the journal or publisher with a clear and transparent account of the findings from their reanalysis.

**A voluntary retraction under these circumstances is not a failure of integrity. It is a direct fulfillment of the author's responsibility to maintain the accuracy and reliability of the scientific record.**



## 7 Language for a Legitimate Correction

**Where a Correction is justified, the language should be clear, neutral, factual, precise, and proportionate. Authors should:**

- State exactly what was incorrect.
- State exactly what has been corrected.
- State whether and how the correction affects rigor, results, interpretation, or conclusions.
- State whether the article was re-reviewed.
- State whether references were re-checked.

### Recommended Language Examples

- *"In the published article, the authors identified an error in..."*
- *"Following full re-review of the article..."*
- *"This correction affects..."*
- *"This correction does not alter the main conclusion that..."*
- *"The reference list was re-checked using the ScienceGuardians™ DOI Retraction Checker."*

### Language to Avoid

- "minor issue" (unless demonstrably true)
- "mere typo" when affecting interpretation
- "does not affect conclusions" without reanalysis
- vague or minimizing language

## 8 Required Elements of a Correction Notice

**A proper Correction notice should include:**

- Exact location of the error
- Original incorrect content (where appropriate)
- Corrected content
- Statement of impact on results or conclusions
- Statement confirming re-review
- Statement confirming reference re-check
- Clarification regarding any retracted references

## 9 Practical Reanalysis Triggers

**Authors should actively check for linked errors:**

- Numerical error → check all dependent sections
- Cohort error → check methods, tables, figures
- Statistical error → re-check all related analyses
- Reference issue → re-check all dependent claims
- Conclusion change → re-check title, abstract, summaries

## 10 Correction Preparedness Checklist

**Before submitting a Correction, authors should confirm:**

- The issue meets the threshold for Correction
- The article remains correctable
- The full article has been re-reviewed
- Data, figures, and analyses have been re-checked
- Conclusions have been reassessed
- All linked sections have been reviewed
- References have been re-checked
- Retraction status of references has been verified
- Any retracted references have been evaluated appropriately
- Language is precise and not misleading
- All authors are aligned
- No additional unresolved error is known

✦ If reanalysis indicates that the article is no longer reliable, authors should consider whether voluntary retraction is more appropriate than a Correction.

## 11 Closing Standard

**A responsible Correction is not merely a statement that one error existed.**

**It is a verified representation that the authors have revisited the work with sufficient rigor to correct the scientific record responsibly, transparently, and as completely as reasonably possible.**