

## Nomenclature and definition in asymmetric regional body overgrowth (2017)

Jennifer M. Kalish, Leslie G. Biesecker, Frederic Brioude, Matthew A. Deardorff, Alessandra Di Cesare- Merlone, Todd Druley, Giovanni B. Ferrero, Pablo Lapunzina, Lidia Larizza, Saskia Maas, Marina Macchiaiolo, Eamonn R. Maher, Silvia Maitz, Julian A. Martinez-Agosto, Alessandro Mussa, Peter Robinson, Silvia Russo, Angelo Selicorni, Raoul C. Hennekam

### Purpose

This study defines and uses the term “isolated lateralized overgrowth” (ILO) in place of previously used terms: “isolated hemihypertrophy” and “isolated hemihyperplasia.” These terms are defined as asymmetry in the body because of overgrowth in individuals without any other underlying diagnosis.

### Findings

Both isolated hemihypertrophy and hemihyperplasia do not have widely accepted criteria to define these terms. Using the correct terms and having the correct definitions is necessary for current and future studies being conducted. These studies will help determine the connection between body asymmetry and the risk of developing cancer.

1. Overgrowth can vary across body parts. For example, a child may have a larger left arm but a larger right leg. Or, he/she may just have a larger arm but not a larger side of the entire body.
2. The term “lateralized overgrowth” describes what a physician can observe during a physical exam. It does not describe whether the cells of the tissue are too big or whether there are too many cells.
3. The definition does not specify what tissue is exhibiting increased size (bone, connective tissue, blood vessels, muscles, etc.) since any combination can occur. Edema, or swelling, is not overgrowth.
4. Overgrowth of an organ may or may not be present and is not necessary for this characterization.
5. Lateralized overgrowth is isolated (ILO) when occurring in the absence of a recognizable pattern of malformations or other physical features.

### Conclusion

By defining isolated lateralized overgrowth and lateralized overgrowth, clinical and molecular studies of affected individuals can go one step further by providing subdivisions of groups of patients. Separating into groups might show differences in risk, prognosis, and treatment.

### Key Points

“Hemihypertrophy” and “hemihyperplasia” are now replaced with the term “lateralized overgrowth.”

### Reference

Kalish JM et al. Nomenclature and definition in asymmetric regional body overgrowth. *Am J Med Genet A*. 2017;173(7): 1735-1738. PubMed PMID: 28475229