



Executive Summary

Cloning, formally known as somatic cell nuclear transfer (SCNT), is the process of creating a genetic duplicate of a cell or organism. Policies around cloning first arose in the late 1990s and early 2000s, following the cloning of a sheep (Dolly) in 1996. States have implemented a range of policies designed to regulate the use of cloning for therapeutic or reproductive purposes.

Research Methods

Reviewed state statutes via Quorum and state code.

Findings and Analysis

Types of Cloning

Therapeutic cloning is the transfer of nuclear material isolated from a somatic cell into an enucleated oocyte in the goal of deriving embryonic cell lines with the same genome as the nuclear donor.ⁱ Reproductive cloning is the deliberate production of genetically identical individuals. Each newly produced individual is a clone of the original.ⁱⁱ Essentially, the difference between the two types of cloning is the intended result. With therapeutic cloning, the goal is to produce a genetic copy for regenerative medicine, gene therapy, and research (e.g., stem cell research). Reproductive cloning results in a cloned embryo being implanted into a uterus with the intent of producing a fetus.ⁱⁱⁱ

Regulations

The United States federal government does not regulate human cloning beyond funding restrictions. As a result, some state legislatures have sought to fill the gap by creating their own regulatory frameworks. Typically, there are four types of regulations: comprehensive cloning bans, reproductive cloning bans, conscience protections, and state funding guidelines. Comprehensive cloning bans prohibit cloning for any purpose. Reproductive bans (sometimes referred to as “clone-and-kill” laws) allow for therapeutic cloning but prohibit reproductive cloning. Conscience protections ensure healthcare professionals cannot be compelled to participate in human cloning. State funding guidelines outline restraints and allowances for state funding of human cloning.

Table 1 provides an overview of which states have implemented each type of regulation. Five CSG South member states (Arkansas, Louisiana, Missouri, Oklahoma, and Virginia) have human cloning laws. Twenty-six states and the District of Columbia have no regulations.

Table 1. Summary of State Laws on Human Cloning

Regulation Type	States	Citation(s)
Comprehensive Ban	<ul style="list-style-type: none"> • Arizona • Arkansas • Indiana • North Dakota • Oklahoma • South Dakota • Virginia 	<ul style="list-style-type: none"> • Arizona Revised Statutes §36-2312 • Arkansas Code § 20-16-1001 • Indiana Code §16-34.5-1-1 • North Dakota Code §12.1-39 • Oklahoma Statutes Title 63 §1-727 • South Dakota Codified Laws §34-14-26 • Virginia Code § 32.1-162.21, et seq.
Reproductive Ban	<ul style="list-style-type: none"> • California • Connecticut 	<ul style="list-style-type: none"> • California Health and Safety Code § 24185



	<ul style="list-style-type: none"> • Illinois • Iowa • Maryland • Massachusetts • Missouri • Montana • New Jersey • Rhode Island 	<ul style="list-style-type: none"> • <u>Connecticut General Statutes §32-41jj</u> • <u>410 Illinois Compiled Statutes 110 §40</u> • <u>Iowa Code Title XVI §707C, et seq.</u> • <u>Maryland Econ. Dev. Code § 10-429, et seq.</u> • <u>Mass. Gen. Laws Title XVI, Chapter 111L, §8</u> • <u>Missouri Constitution Article III, §38d</u> • <u>Montana Code Annotated §50-11-101, et seq.</u> • <u>New Jersey Rev. Stat. § 2C:11A-1</u> • <u>Rhode Island Gen. Laws § 23-16.4-2</u>
<p>Conscience Protections</p>	<ul style="list-style-type: none"> • Louisiana • Idaho 	<ul style="list-style-type: none"> • <u>Louisiana Rev. Stat. § 40:1299.35.9</u> • <u>Idaho Code Annotated §18-611</u>
<p>State Funding Guidance</p>	<p><i>Prohibits State Funding for Any Purpose:</i></p> <ul style="list-style-type: none"> • Arizona • Arkansas • Indiana • Louisiana • Maine • Nebraska 	<ul style="list-style-type: none"> • <u>Arizona Revised Statutes §35-196.04</u> • <u>Arkansas Code § 20-16-1001</u> • <u>Indiana Code §16-21-3-4</u> • <u>Louisiana Rev. Stat. § 40:1300</u> • <u>Maine Revised Statutes Title 22 §1593</u> • <u>Nebraska Revised Statutes §71-8806</u>
	<p><i>Allows Funding for Stem Cell Research or In Vitro Fertilization (IVF):</i></p> <ul style="list-style-type: none"> • California • Illinois • Missouri • Maryland • New York 	<ul style="list-style-type: none"> • <u>California Health and Safety Code § 24185</u> • <u>410 Illinois Compiled Statutes 110 §40</u> • <u>Missouri Constitution Article III, §38d</u> • <u>Maryland Econ. Dev. Code § 10-429, et seq.</u> • <u>New York Public Health Law § 265-a</u>

ⁱ Kfoury C. Therapeutic cloning: promises and issues. *Mcgill J Med.* 2007 Jul;10(2):112-20. PMID: 18523539; PMCID: PMC2323472.

ⁱⁱ National Academy of Sciences (US), National Academy of Engineering (US), Institute of Medicine (US) and National Research Council (US) Committee on Science, Engineering, and Public Policy. *Scientific and Medical Aspects of Human Reproductive Cloning.*



SOUTH

ALABAMA • ARKANSAS • FLORIDA • GEORGIA • KENTUCKY • LOUISIANA • MISSISSIPPI • MISSOURI
NORTH CAROLINA • OKLAHOMA • SOUTH CAROLINA • TENNESSEE • TEXAS • VIRGINIA • WEST VIRGINIA

Washington (DC): National Academies Press (US); 2002. 2, Cloning: Definitions And Applications. Available from:
<https://www.ncbi.nlm.nih.gov/books/NBK223960/>.

ⁱⁱⁱ Rugnetta, Michael. 2019. "Cloning - Reproductive Cloning." In Encyclopædia Britannica.
<https://www.britannica.com/science/cloning/Reproductive-cloning>.