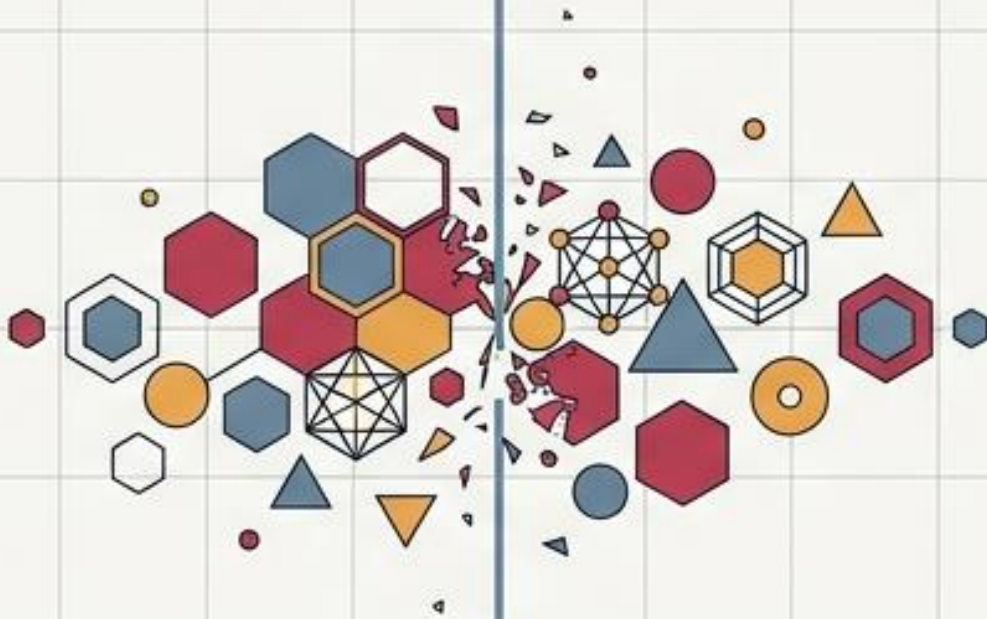
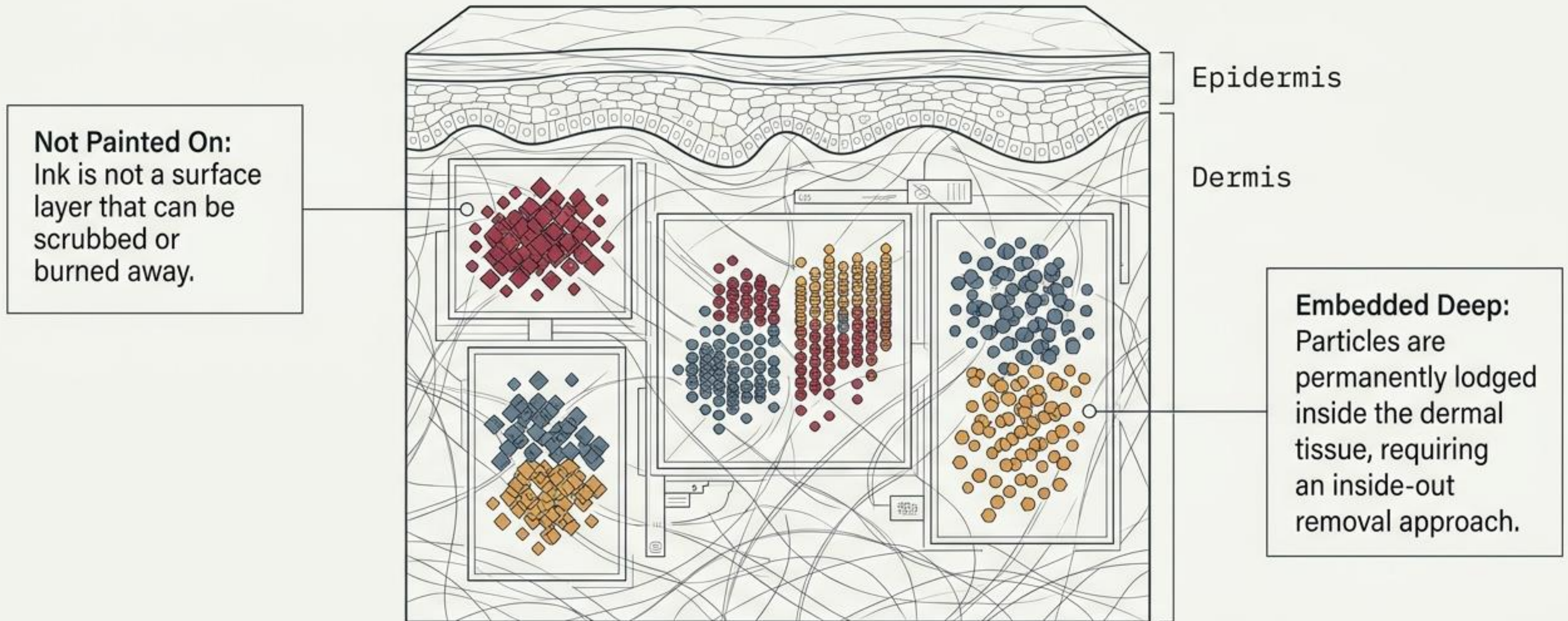




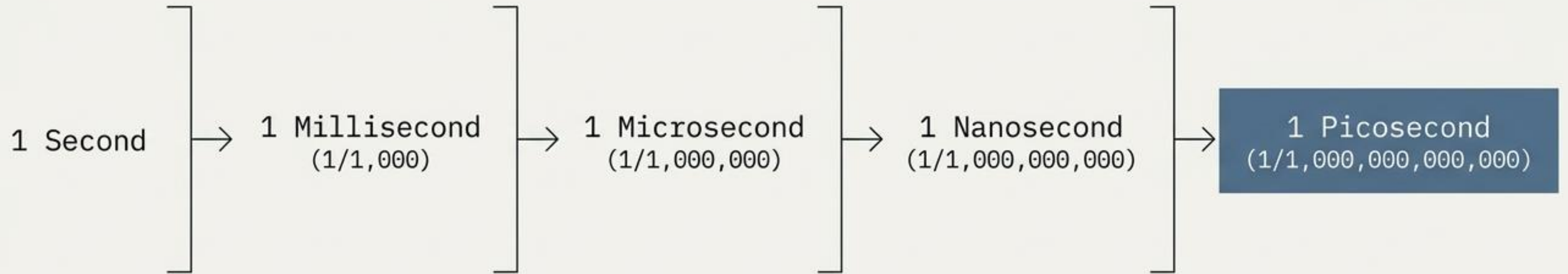
The Anatomy of Precision

The Biophysics of Modern Picosecond Laser Tattoo Removal

Tattoos reside beneath the surface, suspended deep within the dermis.

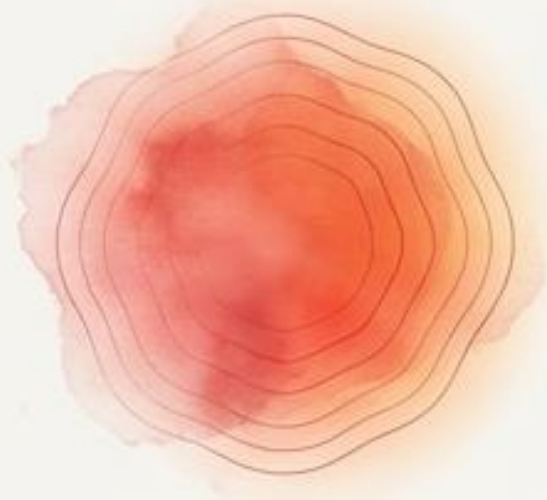


A picosecond is exactly one-trillionth of a second.

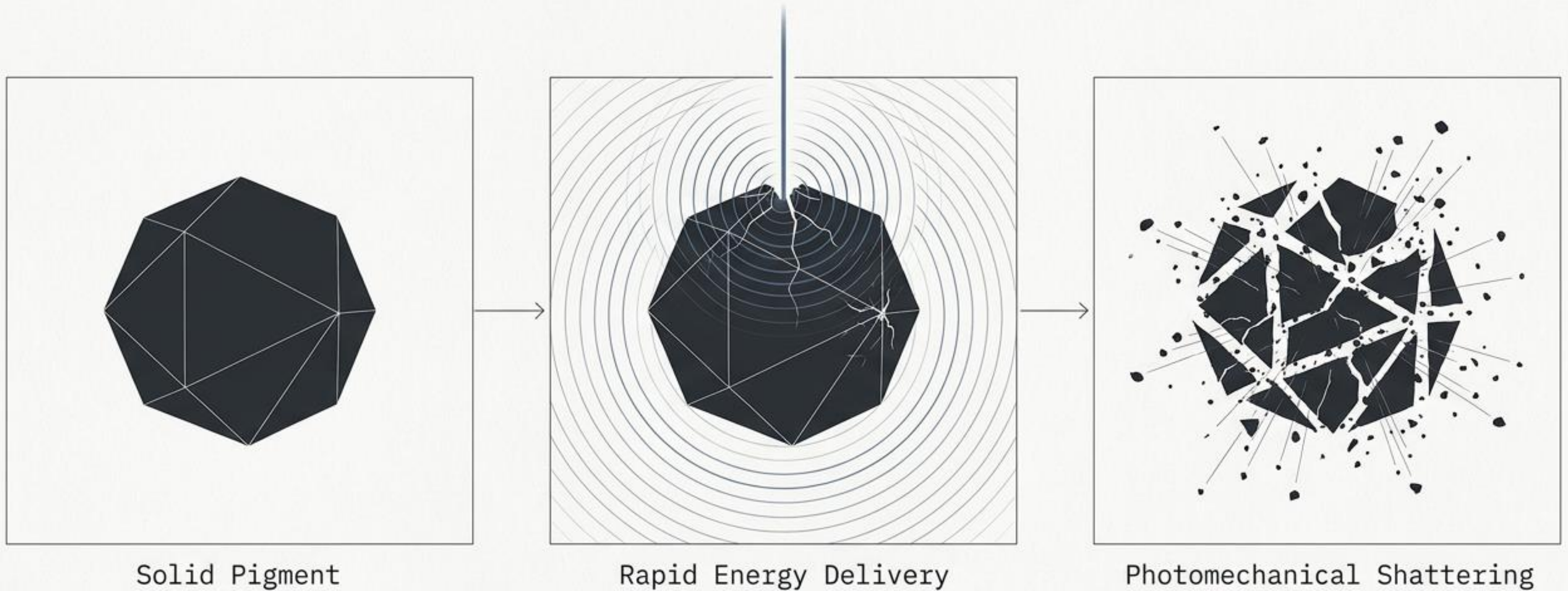


The secret to modern removal isn't sheer power—it is extreme brevity. By delivering energy in a trillionth of a second, the pigment absorbs the laser before significant heat has time to spread to surrounding tissue.

Modern removal relies on mechanical fracture, not thermal damage.

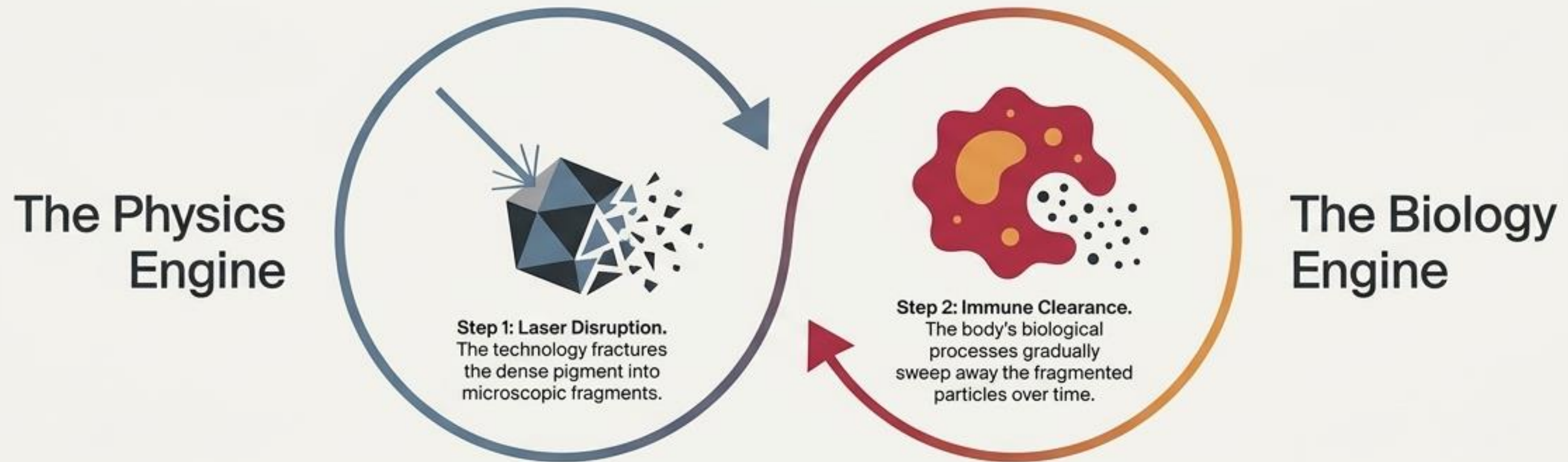
Traditional Lasers (Nanosecond / Long Pulse)		Picosecond Technology	
			
• Mechanism:	Photothermal (Heating)	• Mechanism:	Photomechanical / Photoacoustic (Shattering)
• Effect on Ink:	Gradually heats and melts large areas	• Effect on Ink:	Creates stress that fractures pigment
• Tissue Impact:	High heat transfer to surrounding skin	• Tissue Impact:	Minimal thermal transfer beyond the target

Ultra-short pulses shatter ink through the photoacoustic effect.



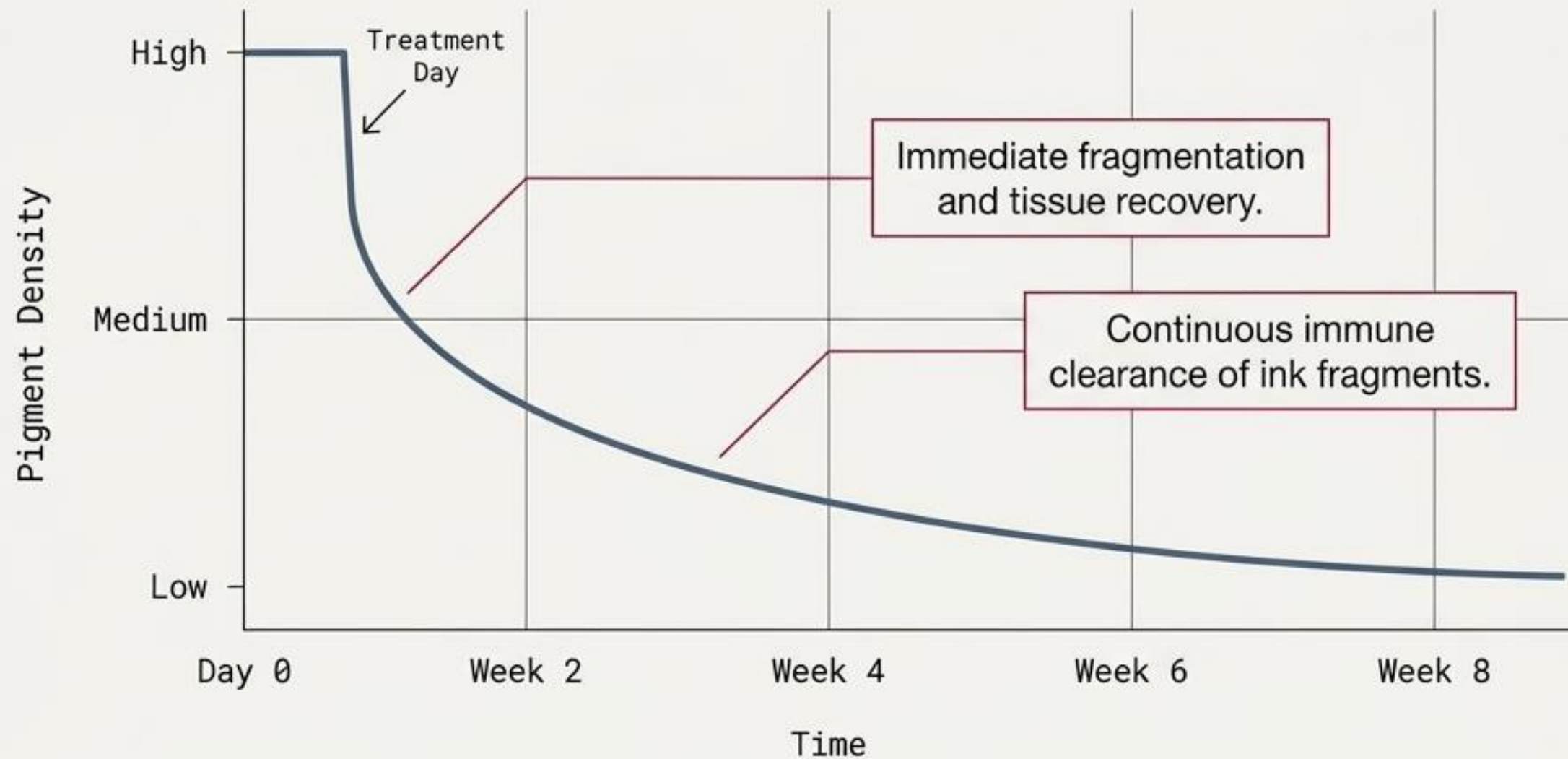
The interaction does not burn the ink out of the skin. Instead, controlled pulses produce massive mechanical stress, fracturing ink into particles small enough for the body to process.

Complete removal requires both physical disruption and biological clearance.



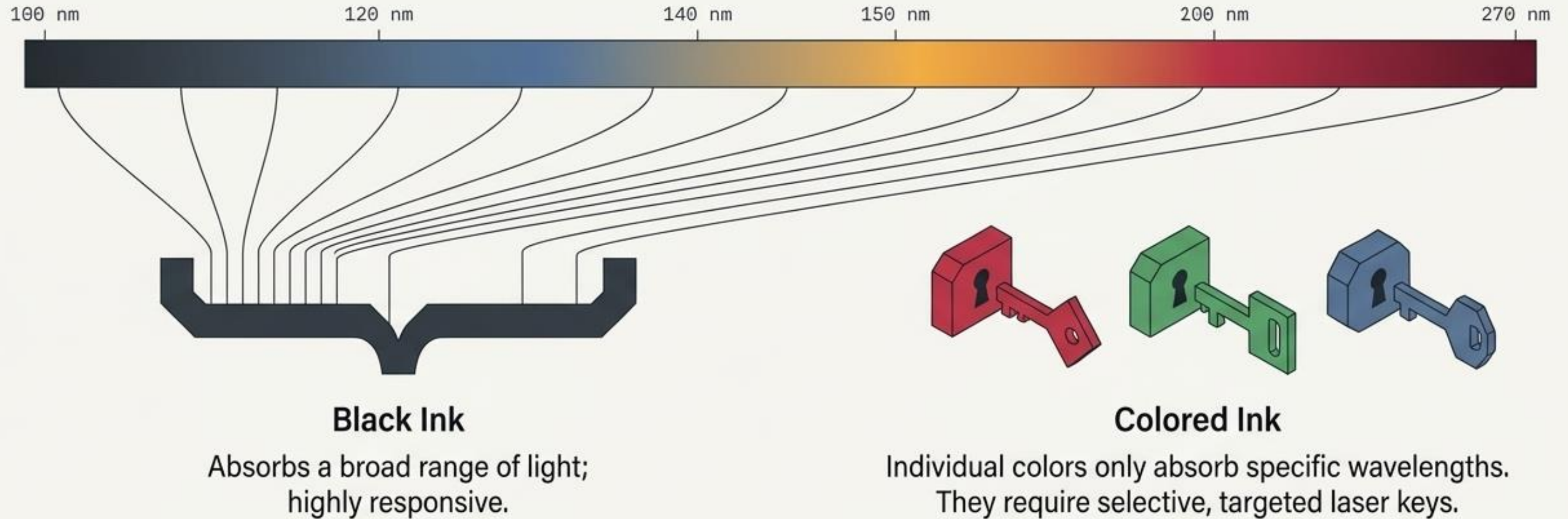
The laser is only the first part of the process.
The technology and the body's response must work together.

Fading occurs progressively during the weeks following treatment.



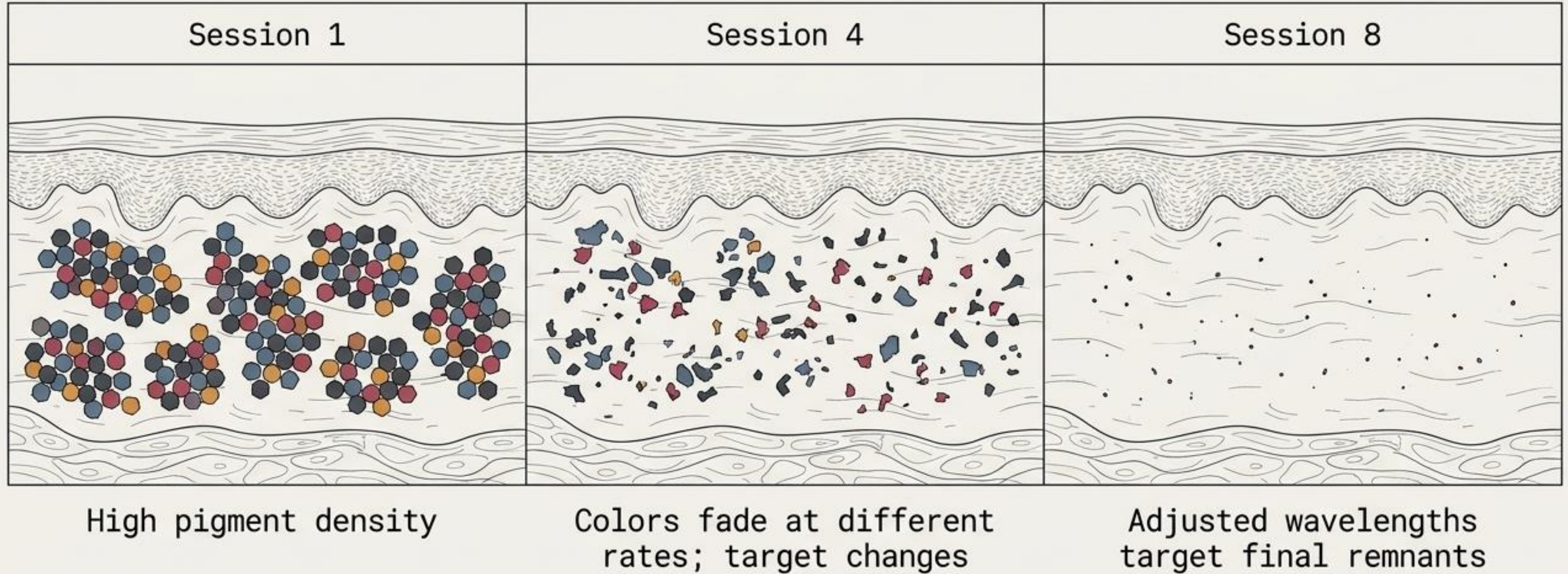
Tattoos do not disappear instantly upon laser contact. Treatments are separated by vital recovery intervals to allow the skin to heal and the biological engine to clear the ink.

Precise wavelengths act as keys to unlock specific ink colors.



An extremely short pulse is not enough by itself. The wavelength of the laser must mathematically match the exact color of the pigment to successfully fracture it.

Treatment parameters must evolve as the tattoo fades.



Removal is not a matter of repeatedly applying identical laser pulses. As ink clears, later treatments require adjusted laser parameters based on the precise pigment that remains.

Success depends on balancing multiple variables, not maximizing power.



A more powerful laser does not remove tattoos faster. The objective is never maximum energy—it is achieving the exact appropriate interaction with the targeted pigment while protecting surrounding tissue.

The Erasure Equation harmonizes physics and biology.



North Bay Laser & Skin Care Center utilizes Discovery PICO technology.

SYSTEM: DISCOVERY PICO
CLASS: PICOSECOND



North Bay Laser & Skin Care Center

Located in Santa Rosa, North Bay provides advanced laser technology designed to address the complex colors and dense pigments found in modern tattoos, utilizing the exact science of photomechanical precision.

A clinical approach prioritizes individualized progression over instantaneous results.



Evaluation

Every tattoo is unique. Size, location, depth, and whether it was professionally applied dictate the baseline.

[DATA_PGINT: BASELINE_METRICS] [TECHNICAL_LINE]



Customization

Treatment is tailored. Wavelengths and parameters are continuously adjusted to match the changing characteristics of the skin and ink.

[PARAM_ADJUST: WAVELENGTH_VARIATION] [PARAM_MATCH_CUR]



Progression

Removal is a series of steps. We ensure the skin has adequate time to recover and process fragmented ink safely between every session.

[SESSION_INTERVAL: RECOVERY_PERIOD] [SESSION_NEXT_SESSION]

Clarifying the mechanics of modern tattoo removal.

Difference vs. traditional lasers?

Picosecond lasers use trillionth-of-a-second pulses to shatter ink photomechanically, limiting the thermal damage common in older lasers.

Why multiple treatments?

Pigment exists at different depths. Ink must be fractured in stages and cleared by the body over weeks.

Can it remove different colors?

Yes. Modern picosecond systems use specific wavelengths designed to target and absorb into difficult colors like red, green, and blue.

Faster with more power?

No. Effective removal requires the exact balance of wavelength, spot size, and energy, not maximum heat.

The Science is About Precision.

Take the first step toward a blank canvas.

Schedule your clinical consultation with North Bay
Laser & Skin Care Center in Santa Rosa today.

[Phone Number] | [Website URL] | [Address]