

AGENCY TALENT PHYSICIAN SEARCH  
INSIGHTS SERIES

# The Future of Women in Spine



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[WHITE PAPER]



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## Introduction: The Missing Women in the OR

Spine surgery is one of the most complex, high-stakes fields in modern medicine — combining technical mastery with precision, endurance, and life-altering outcomes.

Yet in 2025, fewer than 6% of practicing spine surgeons in the United States are women.

This statistic is not just a reflection of pipeline lag or generational inertia. It is the result of structural barriers — from lack of mentorship and visibility to biased selection processes, toxic training environments, and persistent assumptions about who “belongs” in the operating room.

In a healthcare system striving for diversity, equity, and representation, this gap is not only unjust — it is unsustainable.

This white paper examines the roots of the gender disparity in spine surgery, what the latest data reveals, and how health systems and recruitment partners can move from awareness to action.

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## A Snapshot of the Gap: What the Numbers Say

- 5.8% of active spine surgeons in the U.S. are women, as of the latest estimate published in The Spine Journal (2023).
- Among orthopedic surgery residents, women represent just 18% — despite women making up over 50% of U.S. medical school enrollees in 2022 (AAMC).
- In neurosurgery — the other pathway into spine — only 11% of practicing neurosurgeons are women (AANS).
- At the fellowship level, women account for only 9% of spine surgery trainees (Women in Spine Surgery, 2023).
- Leadership representation is even lower: women hold less than 5% of top academic or department chair positions in spine surgery.

These aren't isolated gaps — they are leak points in a pipeline that narrows dramatically as the path advances.







## Root Causes: Not Just a Pipeline Problem

### 1. Lack of Mentorship and Role Models

Medical students often decide on a specialty based on exposure and mentorship. But in spine surgery — where female role models are rare — many women never see a future that includes them.

According to a 2022 survey by the North American Spine Society (NASS), over 70% of female spine fellows cited lack of mentorship as a primary barrier to choosing the specialty.

### 2. Bias in Selection and Training

From residency interviews to surgical case assignments, women in spine often report subtle — and overt — bias:

- Assumptions about physical ability
- Disparities in hands-on surgical time
- Lower scores on subjective evaluations
- Microaggressions and exclusion from informal networks

These are not simply culture issues — they shape who is invited to stay and grow in the field.

### 3. Work-Life Balance and Structural Inflexibility

Spine surgery demands long hours, intense focus, and a grueling training path — often during prime childbearing years. But institutional inflexibility, lack of parental leave support, and stigma around family planning can make the specialty feel incompatible with personal goals, especially for women.

### 4. Toxic Culture and Harassment

In a 2021 study by the AAOS, 1 in 3 female orthopedic surgeons reported experiencing workplace harassment or discrimination — a rate far exceeding their male counterparts. Spine, as a high-prestige subfield, has been particularly slow to address these issues openly.

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### Why It Matters: Representation as a Clinical Imperative

This is not just a workforce diversity issue. It's a care delivery issue.

Studies have shown that:

- Patients often report higher satisfaction and better communication with physicians of similar gender or cultural background (JAMA, 2021).



- Female surgeons are associated with lower complication rates and improved outcomes in several large cohort studies (BMJ, 2023).
- Gender-diverse surgical teams bring broader perspectives, fewer hierarchical blind spots, and more collaborative dynamics — all of which improve safety.

Moreover, if more than half of U.S. medical students are women — yet fewer than 6% of spine surgeons are — we are wasting talent in a time of workforce shortage.

### Signs of Progress (and Why It's Not Enough)

Encouragingly, change is happening:

- Women in Spine Surgery (WISS) has expanded its mentorship and networking programs across major academic societies.
- A growing number of female spine surgeons are becoming keynote speakers, editors, and society presidents.
- Some residency programs now actively track gender equity in surgical assignments and case logs.

But the pace is slow — and progress is uneven. Many programs still operate without clear DEI goals or accountability metrics. And recruitment often defaults to “known quantities” — which perpetuates homogeneity.



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## Agency Talent's Role: Building Diverse Spine Teams

We've seen firsthand how intentionality changes outcomes.

In our work with academic medical centers and top health systems, we've helped clients:

- Expand the candidate slate for spine surgery roles to include 50%+ female and underrepresented applicants
- Structure interview processes that prioritize equity, not just “fit”
- Support retention with custom onboarding and sponsorship planning
- Reduce time-to-fill by 30% — while improving representation and alignment

We don't just talk diversity.

We embed it in every search — from sourcing to strategy to sustained success.

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## sources

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