



COUNCIL OF RESIDENCY DIRECTORS IN EMERGENCY MEDICINE

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## Advising Students Committee in EM (ASC-EM)

# Osteopathic Emergency Medicine Applying Guide



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This applying guide is intended for the osteopathic medical student seeking to pursue a successful match in the ACGME system.

## Background & Overview

Historically, there have been two paths for the osteopathic student (DO) pursuing emergency medicine (EM)—applying to osteopathic-affiliated residency programs under the American Osteopathic Association (AOA) or to allopathic-affiliated residency programs under the Accreditation Council for Graduate Medical Education (ACGME), otherwise known as the National Resident Matching Program (NRMP).

In February 2014, the ACGME, AOA, and American Association of Colleges of Osteopathic Medicine (AACOM) announced a path toward formation of a single graduate medical education accreditation system. Under this plan, AOA-approved programs can apply for ACGME accreditation by June 2020, when the AOA will cease all primary accreditation activities and all EM training programs will be under the ACGME umbrella.

Starting with 2017-18 match season, many osteopathic programs had already converted to their initial ACGME accreditation. A program director survey from 2016 reported that 19 of the transitioning AOA programs reported they would be pursuing additional “Osteopathic Recognition” by 2020 in which programs maintain an osteopathic-focused learning environment. This may include, but not be limited to, integrated osteopathic principles into clinical rounds, dedicated osteopathic manipulation conference, and dedicated rotations focusing on core osteopathic principles. Allopathic graduates can be accepted into these programs, but there may be some pre-matriculation requirements, yet to be determined. At the time of publication of this guide, only three ACGME accredited programs have obtained [Osteopathic Recognition](#). More information regarding Osteopathic Recognition and its requirements for programs can be found on the [ACGME website](#).

Why have osteopathic students historically wanted to apply to ACGME programs?

The reasons given during the last several years by rotating students and residents who graduated from osteopathic schools:

- The opportunity to train in larger medical centers
- Option for three-year training programs
- Academic affiliations of the training programs
- Larger programs and the stability that comes with them
- Greater perceived opportunities for fellowships
- More programs to choose from
- Avoid uncertainty with the current transition to ACGME accreditation for AOA programs
- Ability to obtain EM board certification with either ABEM or AOBEM

What are the chances?

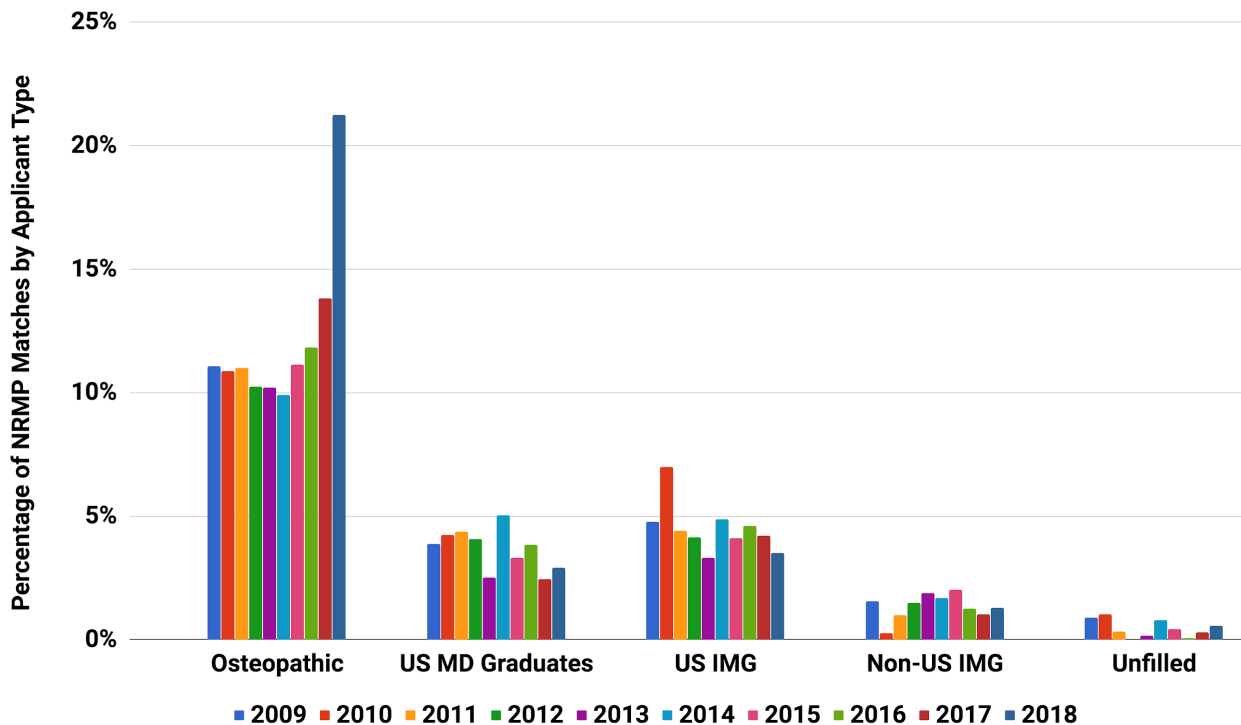
In the 2018 match, there were 2,278 EM spots available with 70.5 percent filled by allopathic graduates. Approximately 13 percent of ACGME EM slots went to osteopathic students (Table 1).<sup>1</sup>

Table 1: Percentage of Osteopathic Students Matching in Emergency Medicine<sup>1</sup>

Specialty	Osteopathic Students/Graduates Matched to PGY-1 Positions by Specialty,* 2014 - 2018									
	2018		2017		2016		2015		2014	
	No.	%	No.	%	No.	%	No.	%	No.	%
▲ Emergency Medicine	484	12.8	283	9.6	224	9.3	203	8.7	177	8.3

Despite the competitive nature of applying to ACGME residency programs as an osteopathic medical student, the number of osteopathic graduates matching in emergency medicine through the NRMP Match has been very stable over time and over the last two years has actually been increasing, likely reflecting the transition of AOA programs to ACGME accreditation (Figure 1).<sup>1</sup>

Figure 1: Percentages of NRMP Matches by Applicant Type 2009-2018<sup>1</sup>

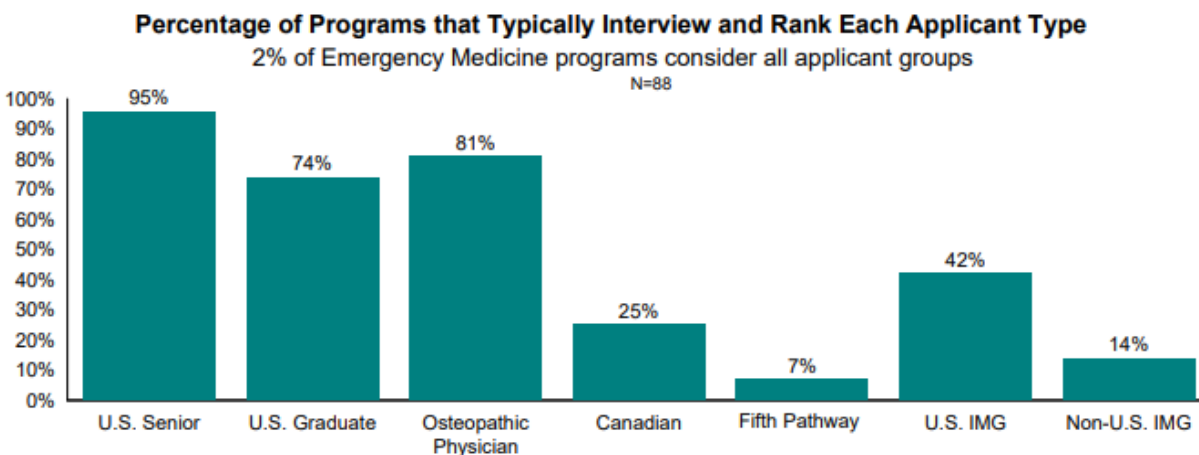


What are the obstacles in applying?

To maximize your chances of a successful match, it is imperative to have a strong application. A big obstacle to an osteopathic student’s application to the ACGME system is perceived competitiveness. The issue of bias against DO students in the

selection process is very real. In the 2018 NRMP Program Director's (PD) survey, only 81 percent of traditionally allopathic programs responded that they would interview and rank DO students, narrowing the number of programs available to apply to overall (Figure 2).<sup>2</sup> There is no 'official list' of programs who have historically been less open to DO applicants, so it will take some legwork in order to best create your application list (see below for more information).

Figure 2. Percentage of Programs that Typically Interview and Rank Each Applicant Type<sup>2</sup>



A successful match will require planning in order to have taken the USMLE and have two EM rotations scheduled early in the fourth year, preferably before October, in order to have Standard Letters of Evaluation (SLOEs) submitted to the Electronic Resident Application Service (ERAS) as soon as possible. Emergency Medicine Residents' Association (EMRA) [Match for Clerkships](#) shows that 95 percent of clerkships (n=123) will accept DO students, and of the 83 percent of clerkships that require USMLE or COMLEX scores before rotations, there is a preference for USMLE over COMLEX.

[EMRA Clerkships](#) is an excellent resource to help you research rotations and identify those that accept DO students.

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## Maximizing Your Application

*\*Check out the [Osteopathic Medical Student Planner](#) for specific recommendations by year of your medical school training.\**

To even the playing field, you need to make yourself as competitive as possible to allow programs to compare you with your allopathic peers. It is also important to avoid any red flags on your application that would diminish your chances of matching. These include: failing classes, failing or scoring low on COMLEX or USMLE examinations, felonies, professionalism issues, and unexplained gaps in training. If you do have any of these red flags, it will make it very difficult for you to match in EM. Please refer to the

[At-risk Applicant Applying Guide](#) for additional information and ways to address these issues.

If possible, make sure to be actively involved in your school's Emergency Medicine Interest Group (EMIG) and find a mentor. A good mentor can be critical. Find an EM faculty advisor who is involved with an ACGME residency. These faculty are the most familiar with the application process and will be able to give the highest quality advice. They can give you feedback on your application and help you figure out how many places to apply as well as guidance about where to apply. Identifying a mentor may be challenging as an osteopathic applicant. A recent study of current EM residents showed that while 70 percent of allopathic institutions have designated EM faculty mentors, only 20 percent of osteopathic institutions offered EM faculty mentors to their students.<sup>3</sup>

If your school isn't affiliated with a training program or if it lacks EM faculty for advisement, consider joining EMRA, SAEM, or other professional organizations. Through EMRA's Medical Student Council, you can be paired with a resident mentor. Students can also participate in large-group virtual advising sessions through EMRA Hangouts. Other options for EM application and career guidance include:

- Get involved with your school's chapter of American College of Osteopathic Emergency Physicians (ACOEP) student section and/or the ACOEP Resident Student Organization (RSO). They also offer a mentoring program, regional symposiums, and numerous residency fairs at national meetings.
- Attend a regional or national EM conference; many have advising forums and/or the opportunity to network with program faculty. American College of Emergency Physicians (ACEP) in the Fall and Society for Academic Emergency Medicine (SAEM) in the Spring both offer residency fairs.
- Ask your upperclassmen how/when/where they found a mentor. Also, query their personal experiences and listen to their recommendations. Someone who has just completed the process can have invaluable information.
- Reach out to a program you're interested in to see if they have faculty who will advise you. Faculty mentors are often available during your out-of-town rotations; consider asking one of their residency leaders for advising.

In planning to maximize your EM application, the three areas that are most critical are board scores, EM rotation performance, and standardized letters of evaluation (SLOEs):

1. **Board Scores:** For starters, the average COMLEX scores of DOs who match into ACGME EM programs are 569 and 621, for level 1 and level 2 respectively.<sup>4</sup> Some ACGME residency directors may be unwilling to accept only a COMLEX score or will look for a grossly higher COMLEX score than the equivalent USMLE score. These tests allow your knowledge base to be compared directly to your MD peers; there is no accurate conversion to translate a COMLEX score

to a USMLE score although the NBOME does offer a [percentile score calculator](#) for converting the three-digit COMLEX step score to a percentile.<sup>5-7</sup> A recent survey of program leadership administered by CORD's Advising Students Committee in EM (ASC-EM) showed that of programs who consider osteopathic applicants, only half of them would extend an interview to an applicant who had not taken either step of the USMLE. This number jumped to 87 percent when the osteopathic applicant had taken USMLE Step 1. The same ASC-EM survey showed that 90.3 percent of program leadership surveyed (N=104) will consider osteopathic applications. But when it comes to boards, when a candidate submitted both USMLE and COMLEX scores, only 15 percent (n=88) heavily weighted the COMLEX, while 26 percent gave it a slight weight, 27 percent did not weigh it at all, and 31 percent would only weigh the COMLEX score if it was listed as a failure.<sup>8</sup> Acceptance of COMLEX scores may change as the applicant pool expands at historical ACGME programs and programs become more comfortable with interpreting the COMLEX, but we have some time before that becomes the norm.

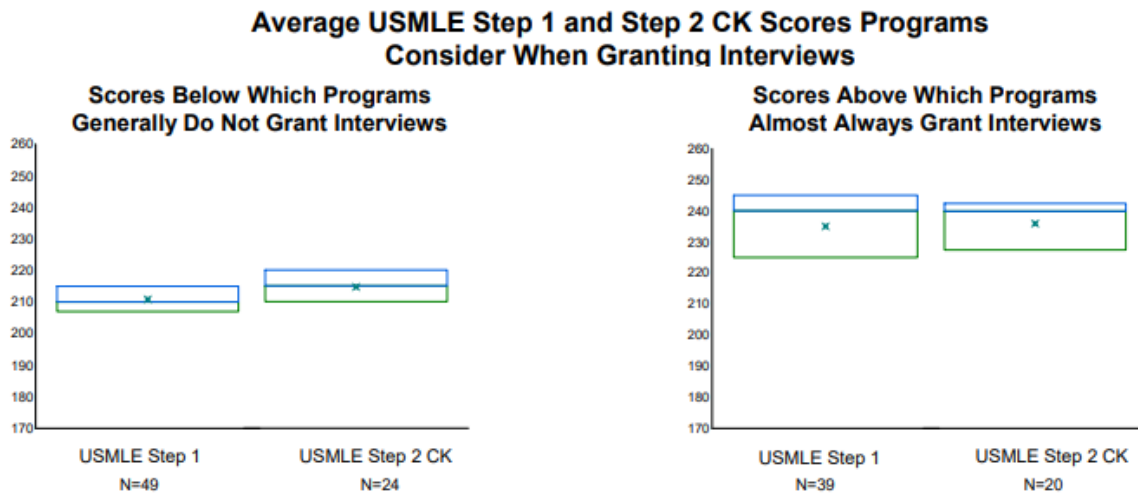
Therefore, we recommend you take the USMLE (Step 1 and Step 2 CK) in addition to the required COMLEX; students who do so are more likely to match.<sup>7</sup> If you are only able to take one of the two USMLE exams, taking Step 1 will give you better access to clerkship rotations and, by extension, SLOEs.<sup>8</sup> It will also increase your chances of being considered for an interview at residency programs who consider DO applications.

As an osteopathic medical student, you are required to take COMLEX Level 1, 2CE/PE, and Level 3 for licensure. The USMLE will not assist you with licensure; it merely will serve as a tool for program directors to compare you. If taking the USMLE, you will not be required to complete all of the steps, but you can take them independent of one another (i.e. can take Step 1 without 2, and vice versa).

While the USMLE and COMLEX exams are similar, it is imperative that you study specifically for the USMLE and are scoring above the national average on practice exams before actually sitting for the exam to maximize your score. A good score will increase your chances of matching.

USMLE Step 1 scores around 225 or greater and USMLE Step 2 scores around 240 or greater will help you get interviews.<sup>2</sup> USMLE Step 1 scores less than 210 and USMLE Step 2 scores less than 220 may make it much more difficult for you to get interviews (Figure 3).<sup>2</sup> If possible, try to take USMLE Step 2CK early in fourth year so you can have your scores released by Oct. 1, especially if your Step 1 score is <220. For USMLE Step 1 scores <220, a backup plan is strongly advised.

Figure 3. Average USMLE Step 1 and Step 2CK Scores Programs Consider When Granting Interviews.<sup>2</sup>



The boxes in the boxplots above represent the interquartile range (or IQR, which is the range between the 25th and 75th percentiles) and the line in the box is the median. The x-shaped symbol is the mean.

- Rotations: You will need to try to secure at least two EM audition electives, ideally at academic programs with an ACGME residency program. You will want to rotate as early as possible in your fourth year in order to have at least one Standard Letter of Evaluation (SLOE) available when the Electronic Residency Application Service (ERAS) opens in mid-September. You will be side by side with your allopathic peers on these rotations and will demonstrate your performance in an academic setting similar to the residencies to which you will be applying.

Note that many academic programs use the [Visiting Student Learning Opportunities Service \(VSLO\)](#) for audition rotations and start accepting applications as early as February or March. Keep your eye out for any program-specific dates and application requirements. For example, programs may require a USMLE Step 1 score, a CV, or a brief personal statement. Programs may use audition rotations as a recruitment tool as much as you will use it to explore the program.

You can utilize [EMRA Clerkships](#) as a resource to find programs that willingly accept DO students into their clerkships.

- Letters of Recommendation: The letters of recommendation that carry the most weight will be in the SLOE (Standardized Letter of Evaluation) format and come from residency program leadership. You should aim to get two SLOEs from academic residencies, preferably group SLOEs written by the educational teams where you rotate. The recent CORD ASC-EM PD survey showed that 79.1 percent of program leadership recommend two SLOEs for osteopathic applicants.<sup>8</sup> These letters carry more weight than traditional letters of

recommendation because they provide context for direct comparison of you to your EM-bound peers by people integral to the EM match process. These standard letters are one of the most frequent omissions from osteopathic applications and one of the most highly-valued aspects of the EM application process to PDs,<sup>2</sup> making it difficult to accurately compare osteopathic applicants to the rest of the applicant pool.

While community EM months can be great learning experiences and expose you to how the majority of EM physicians practice, they will not significantly assist your application to an ACGME EM residency. A letter of recommendation or even an SLOE written by a doctor at a community ED is not the same thing as one from an ACGME program and may not be counted as equivalent. If your school requires a community EM experience, you will have to do extra clerkships in EM, and in some instances, even forgo credit to gain opportunity and advancement in your application.

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How many programs should I apply to?

Depending on the strength of your overall application (USMLE scores, EM clerkship performance, SLOEs, etc.), consensus from the recent ASC-EM survey is that the typical DO applicant should consider applying to somewhere between 31-40 realistic programs in order to obtain approximately 12 interviews to have a strong chance of a successful match.<sup>8</sup> This number may also need to take into account region of the country and your overall competitiveness.

The “numbers question” truly requires an individualized answer from an advisor familiar with the EM application process who can help you assess how competitive an applicant you are. For a less competitive applicant, it is important to have a frank discussion about a parallel application plan in case the EM interviews are not forthcoming.

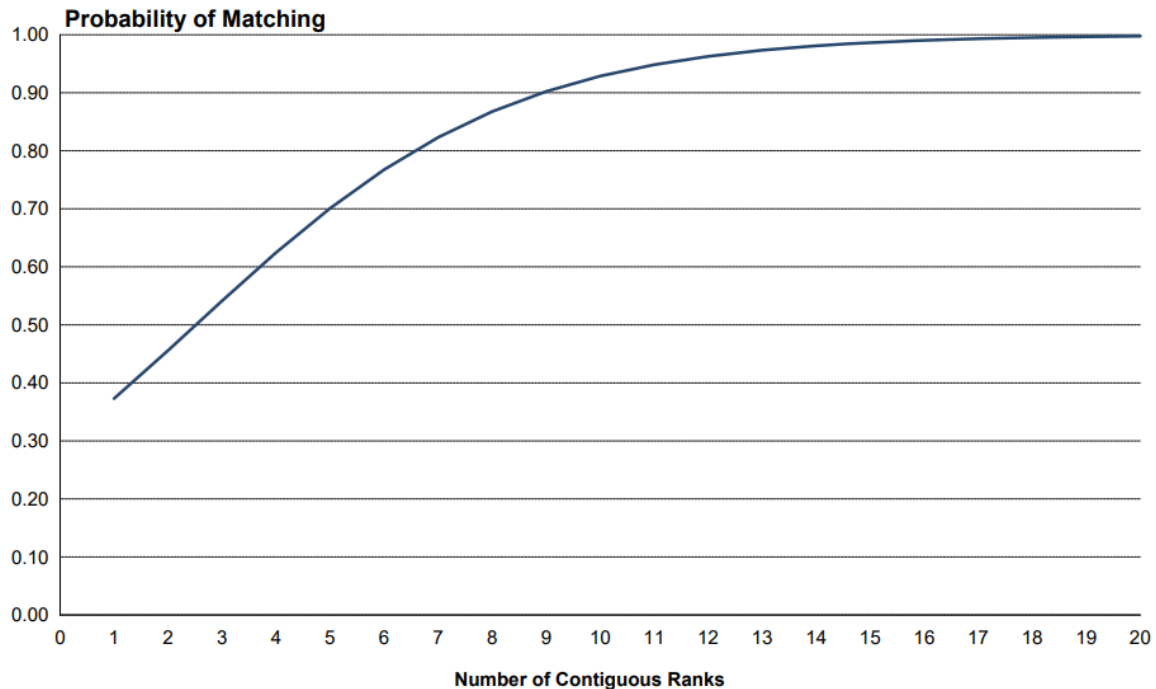
Data show that applicants who ranked nine programs had an approximately 90 percent match rate in EM. Those with 11 or more programs pushed that match rate up to 95-99 percent (Figure 4).<sup>4</sup>

Figure 4. Probability of U.S. Osteopathic Medical Students/Graduates Matching to Preferred Specialty by Number of Contiguous Ranks<sup>4</sup>



Graph  
EM-1

Probability of U.S. Osteopathic Seniors Matching to Preferred Specialty by Number of Contiguous Ranks  
*Emergency Medicine*

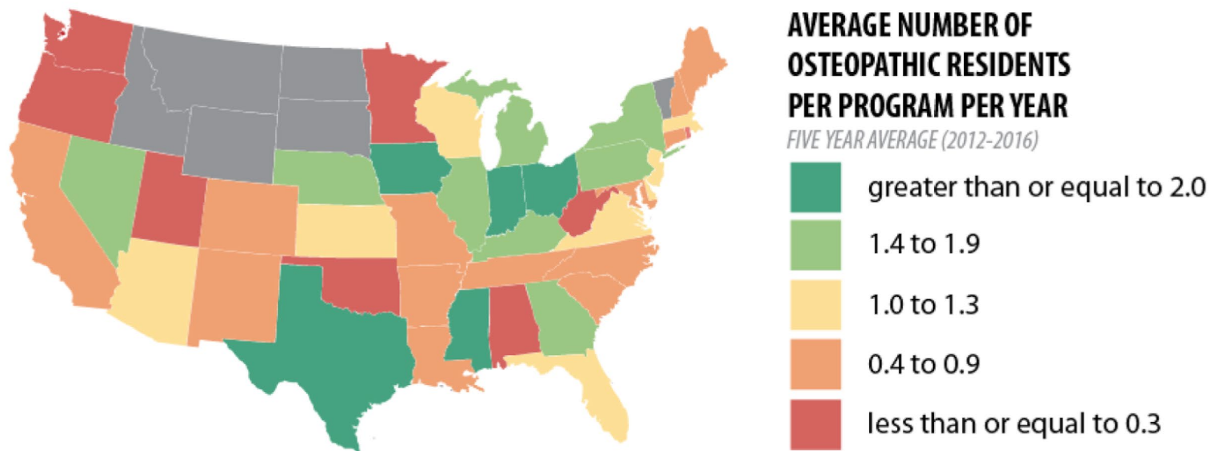


Which programs should I apply to?

One common strategy to identify programs accepting DO applicants is to look at the composition of the current residency classes at an institution—if they have DOs, especially if they have matched someone from your school, they will likely consider your application. If they have no DOs, you need to be realistic about the likelihood of an interview; however, it is still worth the application if you truly are interested in the program. In this instance, you may not want to count this program in the overall number of places where you are applying. In other words, apply to 31-40 programs that you think you have a high likelihood of getting into and that commonly accept DO students. Once again, reach out to an advisor if you are unsure about your competitiveness, if you think there might be red flags in your application, or if you have board scores that may make you less competitive.

Osteopathic students may benefit from focusing on geographical areas which have historically matched higher percentages of osteopathic applicants. Between the years 2012-16, Indiana, Iowa, Mississippi, Ohio, and Texas matched the most osteopathic students per ACGME residency program per year (Figure 5).<sup>9</sup>

Figure 5. A Geographical Representation of Average Number of Osteopathic Residents Per Program Per Year<sup>9</sup>



In terms of raw numbers, on average over the past five years, New York, Pennsylvania, Texas, Ohio, and Michigan have accepted the most osteopathic students into ACGME programs each year (Table 2).<sup>9</sup>

Table 2. Average Number of DO Residents in ACGME Programs by State

State	2012	2013	2014	2015	2016	Average Number of DO Residents Matched into ACGME Programs	Number of ACGME Programs (as of 2015)
New York	30	23	26	42	43	32.8	21
Pennsylvania	27	24	18	18	22	21.8	12
Texas	21	19	21	24	17	20.4	9
Ohio	15	18	23	17	21	18.8	9
Michigan	13	11	15	19	19	15.4	11
Illinois	11	13	9	9	17	11.8	8
New Jersey	4	9	10	7	9	7.8	7
California	2	4	8	9	10	6.6	14
Florida	5	10	5	6	7	6.6	5
Massachusetts	4	5	9	7	6	6.2	5

[EMRA Match](#) can be used to sort programs by the percentage of DO residents in training at individual locations. Be aware that just because a program has few or no DOs does not mean they are closed to receiving your application.

Some programs who give consideration to both types of students may rank academically equal MDs above DOs. Not surprisingly, to be successful in matching, you need to stand out as a candidate and be strategic in planning your application.

What are some tools and resources that can help me?

There are a lot of great resources out there. Here are a few of the high-quality ones:

- [EMRA Match](#)
- [EMRA Clerkships](#)
- [CDEM Curriculum](#)
- [EMRA Hangouts](#)

### Key Points

1. Taking the USMLE Step 1 and Step 2 will allow your knowledge base to be compared with your allopathic peers and increase your chances of getting both audition rotations and residency interviews. A USMLE Step 1 score <220 warrants taking Step 2 CK early as well as considering a backup plan.
2. Try to complete two audition elective rotations at ACGME residency-based training programs before October of your fourth year.
3. Aim to get two Standard Letter of Evaluations (SLOEs) from ACGME EM programs submitted as early as possible, with at least one uploaded by the time ERAS opens on Sept. 15.
4. Be strategic with your application and use your resources. Do some legwork to identify programs that are open to interviewing and matching osteopathic candidates.
5. Find an advisor early who is familiar with the EM application process to discuss your application, help gauge your competitiveness, and come up with a backup plan if needed.

### References

1. National Resident Matching Program, Results and Data: 2018 Main Residency Match. National Resident Matching Program, Washington, DC. 2018.
2. National Resident Matching Program, Data Release and Research Committee: Results of the 2018 NRMP Program Director Survey. National Resident Matching Program, Washington, DC. 2016.
3. Stobart M, O'Connell A. Medical Education Accreditation System: Evaluating Factors for Match Success in Emergency Medicine. Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health. 2018. (Accessed August 1 2018 at <https://escholarship.org/uc/item/9cc5n91z>).

4. National Resident Matching Program, Charting Outcomes in the Match for U.S. Osteopathic Medical Students and Graduates. National Resident Matching Program, Washington, DC. 2018.
5. Sarko J, Svoren E, Katz E. COMLEX-1 and USMLE-1 Are Not Interchangeable Examinations. *Academic Emergency Medicine*. 2010; 17:1–3.
6. Lee AS, Chang L, Feng E, Helf S. Reliability and Validity of Conversion Formulas Between Comprehensive Osteopathic Medical Licensing Examination of the United States Level 1 and United States Medical Licensing Examination Step 1. *Journal of Graduate Medical Education*. 2014, 6(2): 280-283.
7. Weizberg M, Kass D, Husain A, Cohen J, Hahn B. Should Osteopathic Students Applying to Allopathic Emergency Medicine Programs Take the USMLE Exam? *West J Emerg Med*. 2014 Feb; 15(1): 101–106.
8. Council of Emergency Medicine Residency Directors Advising Students Committee in Emergency Medicine. (2018). [CORD ASC-EM Advising Addenda Study]. Unpublished raw data.
9. National Resident Matching Program, Main Residency Match: Match Rates by Specialty and State, 2012-2016. National Resident Matching Program, Washington, DC. 2012-2016.