



Understanding Generative AI and Organic Search

A Healthcare Marketer's Playbook



Instead of optimizing clicks and rankings alone, healthcare organizations must now also optimize for AI-driven platforms that summarize, synthesize, and sometimes answer user queries without sending them to your website.

AI search refers to search engines and platforms that use large language models (LLMs) and other AI technologies to generate human-like answers to queries. Think Google's AI Overviews, Bing Copilot, Perplexity, or ChatGPT's browsing mode.

Instead of serving a list of links, these platforms synthesize answers from multiple sources — often quoting or paraphrasing web content directly. For the user, it's more convenient. For marketers, it's more opaque.

We unpack the evolving world of generative AI search and Generative Engine Optimization (GEO), its implications for healthcare marketers, and the practical steps you can take to adapt.

Two Key Shifts

To understand the impact of generative AI on organic search, we must first acknowledge two fundamental shifts reshaping the digital landscape:

01

The declining value of clickthrough rates

02

The blurring boundaries between traditional website content and external digital touchpoints.



KEY SHIFT 01

Content visibility is paramount because clickthrough rate is declining

The first shift is rooted in a sobering trend: clickthrough rates (CTR) are steadily declining. While impressions — the number of times a search result is seen — remain consistent or even increase, fewer people are actually clicking through to websites. This pattern has emerged gradually in traditional SEO data, but generative AI search is accelerating the trend. AI-powered tools like Google's AI Overviews or ChatGPT often satisfy a user's query directly on the search results page, without requiring them to visit a website at all.

As a result, the conventional marketing funnel — where awareness flows into consideration and then to conversion — is compressing. Patients are skipping steps. When they do finally land on a healthcare website, they're often further down the decision path, and expecting immediate, actionable answers.

For healthcare organizations that have historically relied on organic traffic to fuel patient acquisition and brand visibility, this trend can feel like an existential threat. **But it doesn't have to be.**

The key to thriving in this new paradigm lies in visibility — specifically, being cited and positively represented within AI-generated content. Because these AI models draw from a wide variety of sources, it's no longer enough to rank well; content must be optimized for discoverability and credibility within AI environments.



Brands must ask themselves not just, **"Are we on the first page of Google?"** but **"Are we being referenced by AI when it answers health-related queries?"**

KEY SHIFT 02

AI-driven search blurs the line between website content and external marketing

This leads directly to the second key idea: AI-driven search is dissolving the traditional boundaries between website content and external marketing. A healthcare organization's visibility in search is no longer confined to its owned web properties. Instead, search engines (particularly AI-enhanced ones) are synthesizing signals from across the digital ecosystem. Google Business Profiles, provider listings on platforms like Healthgrades and WebMD, user reviews, social media content, and even off-site mentions in news articles or blog posts all contribute to how a brand is represented in AI-driven results.

In essence, "the search engine" is no longer a singular destination; it's a multi-platform, AI-mediated experience. Whether a user types into Google, asks Siri a question, or interacts with ChatGPT, the AI is piecing together a picture of your brand from everywhere it finds your name.

This shift radically changes what it means to manage brand presence. Visibility isn't just about dominating traditional SERPs. It's about ensuring your brand appears consistently, accurately, and favorably across every channel that feeds into AI models. Healthcare marketers must now think holistically by treating websites, business profiles, third-party directories, and social channels as interconnected components of a unified visibility strategy. In this environment, marketing, content, and reputation management are no longer siloed efforts; they're core to how patients discover and trust your organization in an AI-driven world.

Evolution of Search

Generative Engine Optimization represents the natural evolution of zero-click search results, where users receive complete answers without ever visiting a website. In this model, AI-generated responses are assembled from a blend of sources — including content from you and your competitors — and are no longer just a list of links, but synthetic answers often accompanied by annotations or citations.

Crucially, these answers aren't limited to what's published on your website; they are informed by everything the language model knows about your brand across the digital landscape. This makes reputation management and structured, consistent content even more critical. And in the healthcare space, this shift is already underway — on Google alone, more than 90% of health-related searches now include a GEO result.

To understand this moment, it's important to understand the evolution of search, including:

- **Traditional “ten blue links” SEO (1997-2014)**
- **Voice-assisted Answer Engine era (AEO) (2011-2022)**
- **Current trend of Generative Engine Optimization (GEO) (2023-present)**
- **Emerging Agentic Intelligence Optimization (AIO) (2024-present)**

01 Search Engine Optimization (SEO)

Focus: Optimizing websites to rank higher in traditional search engine results pages (SERPs)

Key Tactics: Keyword research, content quality, backlinks, technical optimization.

Goal: Drive organic traffic by ranking for relevant queries.

Audience: Human general searchers.

02 Answer Engine Optimization (AEO)

Focus: Structuring content to provide direct, concise answers to user queries, especially for voice search.

Key Tactics: Clear FAQ formatting, Schema markup, bullet points, and lists.

Goal: Get your content chosen as the direct answer in search results - voice responses or zero-click results.

Audience: Human users seeking direct answers, particularly through voice queries.

03 Generative Engine Optimization (GEO)

Focus: Optimizing content for generative AI platforms so they can cite your content in synthesized answers.

Key Tactics: Conversational tone, semantic context, using AI-friendly structure.

Goal: Ensure your content is surfaced and cited in AI-generated answers.

Audience: LLM crawlers/bots interacting with optimized structured and semi-structured content.

04 Artificial Intelligence Optimization (AIO)

Focus: Optimizing the interaction with AI-driven systems, not just for search but across chatbots, voice assistants, and other AI interfaces, such as MCP Servers.

Key Tactics: Enhancing content structure, interaction design, ensuring relevant and personalized responses.

Goal: Make interactions with AI systems intuitive and effective, regardless of platform.

Audience: Human and AI users engaging with any AI-driven interface, not limited to search.

Impacts of Generative Search

The rise of generative AI search is having a profound impact on both how patients engage with healthcare information and how organizations measure and influence that engagement.

Reduction in Organic Traffic

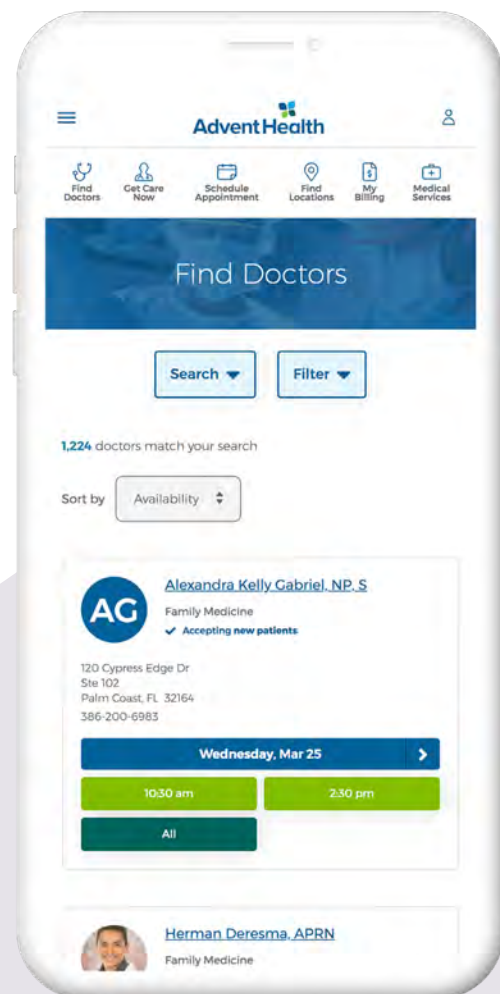
One of the most immediate consequences is a noticeable reduction in organic traffic to websites.

As AI platforms become more adept at delivering synthesized, accurate answers directly on the search results page, users are less inclined to click through to external sources. For healthcare marketers, this disrupts long-established digital marketing models, particularly those focused on new patient acquisition, appointment bookings, and attribution. With fewer patients reaching the site via traditional channels, healthcare organizations must rethink how they create and deliver value in the discovery phase of the journey.

Changes to the Funnel

Another key shift is that patients who do reach your site are arriving much later in the decision-making process. Generative AI and zero-click answers effectively handle the top-of-funnel questions such as symptoms, conditions, and general treatment options, leaving only more specific, action-oriented tasks like scheduling or bill pay to the website experience. This compresses the funnel and raises the stakes for content and user experience design.

When a patient arrives, they expect clarity, trust, and immediate next steps. There is little room for confusion or friction.



Improved Access and Equity

At the same time, generative AI search opens new possibilities for improving access and equity. Unlike traditional search engines, which often prioritize text-heavy formats, AI systems are increasingly capable of supporting conversational interactions, voice search, and even image-based inputs. These multi-model search capabilities create new entry points for patients who may struggle with health literacy, language barriers, or visual impairments. GEO and AIO technologies have the potential to democratize access to health information, especially if content is structured and optimized accordingly.

In short, while the shift to AI-driven search creates challenges for traditional marketing models, it also unlocks opportunities for organizations willing to rethink how they deliver information and build relationships in this new environment.

Visibility, clarity, and inclusivity will define success in the generative search era.

Adapting Websites for AI Search

Because GEO represents the next step in a natural evolution of search, the way to thrive in this new era is to invest in foundational digital experience best practices.

The activities that create a good experience for visitors also lead to success in both traditional SEO and modern GEO.

Audience-driven content strategy and copywriting, understanding intent, writing for questions and not just keywords, clear UX/UI, accessibility, site speed and stability, reviews and listings, and structured content all contribute to outstanding digital experiences for visitors. They also lead to **long-term success**.



Invest in Schema and Structured Data

An increasingly critical element in this ecosystem is structured data. Schema markup not only helps traditional search engines interpret your content — it also makes it easier for large language models (LLMs) to cite and summarize your information. Healthcare websites should prioritize schema implementation across key content types, such as:



Provider profiles



Location pages

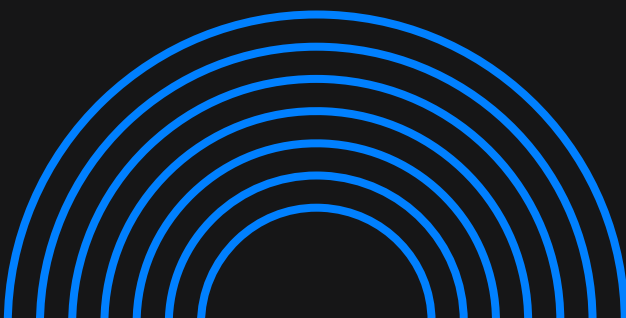


Service lines



Educational content such as the health blog and FAQs

By offering structured context, you enable AI tools to more accurately represent your brand in search results and conversational interfaces.



Local SEO: Think Brick and Mortar

Local SEO is more important than ever. As AI tools prioritize location-based results, healthcare organizations must link their digital presence to physical locations. This includes updating Google Business Profiles, third-party listings, and visit-planning pages with accurate information. Patients and AI tools alike rely on this data for trustworthy, localized answers.

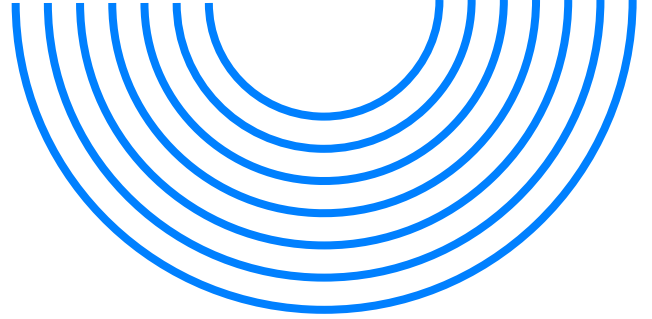
Repetition and Consistency

Consistency is key in the AI era. Generative tools scan the web, so business info must be uniform across directories like WebMD, Healthgrades, and Yelp. Inconsistent NAP (Name, Address, Phone) data erodes trust. A unified approach to listings and reviews strengthens brand reliability and supports local SEO.

Positive Earned Brand Mentions

New research shows that brand mentions in earned, non-paid content are the top driver of visibility in ChatGPT conversations. Adapting to generative AI isn't about chasing trends — it's about reinforcing digital foundations to keep your brand visible, credible, and competitive as search evolves.

A New Measurement Paradigm



With this paradigm shift, we need a completely new framework for measuring success. The primary difference between Search Engine Optimization (SEO) and what we're now calling Generative Engine Optimization (GEO) lies in their fundamental goals and metrics.



Curious how AI Search is affecting your organization?

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SEO

- Capture the first organic position in the traditional "10 blue links"
- Drive traffic to the website
- Success metrics revolved around keyword rankings, click-through rates, and organic traffic volume

GEO

- Ensure your content is discovered, cited, and accurately interpreted
- Positive brand sentiment associated with priority queries
- Success metrics include the visibility of citations and their relevance to queries, in addition to click-through rates and traffic volume
- There is no real ranking: content is cited or not cited

For traditional SEO, the goal has always been clear: capture the first organic position in the traditional “10 blue links” SERPS and drive traffic to your site. Success metrics revolved around keyword rankings, click-through rates, and organic traffic volume.

GEO requires an entirely different mindset. The goal isn't necessarily to get the click — it's to ensure your content is discovered, cited, and accurately interpreted by AI-enhanced search engines, enhancing its chances of being included in AI-generated responses. Contrary to SEO, which has only a single top spot, GEO citations can come from anywhere in your website. This means that your entire website must be GEO-ready.

In this new world, impressions become more critical than clicks. You'll want to track citation frequency — how often is your content being sourced in AI responses? You'll focus on measuring the visibility of citations and their relevance to user queries rather than simply counting visitors.

Let's be clear about what this means: in the GEO world, impressions are everything because click-through rate is approaching zero. The shift to GEO is equivalent to zero-click results, which shifts the entire effort of content teams to focus on structured content, understanding audiences and user intent, and heightened awareness of how content gets discovered and cited.

This requires aligning your analytics approach with this new reality.

- **What are the valuable metrics when success isn't solely measured by a website visit?**
- **How do we tie marketing activities to patient acquisition when the traditional digital funnel is being compressed?**

These are questions every healthcare organization needs to address.



Current Measurement Limitations

While GEO (re)introduces brand visibility and relevancy as metrics, we are still left wanting to understand how AI Search is driving traffic to our websites. In short, can we see web traffic data from LLMs like ChatGPT, Google AI Overviews, and Perplexity?

Currently, the answer to that question is "no", at least not with the granularity that we expect (and have) from traditional "ten blue links" organic search.

To understand the limitations, it's important to review the data we have available from traditional organic search, specifically Google Search Console.

As a website publisher, I can see (for traditional organic search)

- **Query that a user typed into Google Search**
- **Page on the site that appeared in the search results, either clicked or just shown**
- **Impressions received for each query, regardless of whether it was clicked**
- **Clicks into the site from the SERP**
- **Average Position of the page for a specific query across all impressions**

Via web analytics tools, it's also possible to understand:

- **Website traffic generated from organic search**
- **Which site pages have been indexed by Googlebot crawlers**

This same level of granularity is not available for AI Search.

For Google's AI Overviews, Google Search Console captures the same data as in SEO, but data from AI Overview results are grouped together, and there's no explicit filter for just AI Overviews in GSC.

Other AI assistants (ChatGPT, Perplexity, Copilot) do not provide impression or query analytics to site owners.

It is possible to see rough data for traffic generated from the various LLMs by analyzing your web logs for referrers. It's also possible, with some labor, to see which site pages have been crawled by the LLM crawlers by analyzing user-agent strings.

The leading SEO companies all have beta features/modules with LLM visibility modeling (where LLM answers appear and where your site is referenced). But this is not first-party click data from the LLM engines themselves. Their data is just their estimation based on scraping LLM page layouts. (It might be a good estimate, but it's only an estimate.) This is the same thing they've been doing for years with traditional Organic, applied to the GEO/answer engine space.



Final Thoughts

Generative AI is reshaping how patients discover healthcare services. For marketing and communications teams, this means shifting focus solely from ranking high to being reliably discoverable. From click-throughs to citations. From keyword stuffing to writing for questions and intent.

Success now depends on three things:

- Foundational digital best practices
- Thoughtful digital strategy aligned with patient needs
- Smart measurement frameworks that match the AI era

Ready to see your actual AI search performance?

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