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## Chiropractic in Medical Literature Indexes 1895-1984

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### Abstract

Seven medical literature indexes published in the United States between 1895 and 1984 were surveyed resulting in a bibliography of 684 medical literature citations regarding chiropractic. A synopsis is presented of the development of both the National Library of Medicine and medical literature indexes. Discussion includes tabulated analysis of the citations by index title, years published, languages, and journal titles. Findings included 430 English language citations and 221 foreign language citations with 67 percent of the entries published since 1960. Observations of the demographics of the bibliography show an early period with most citations dealing with chiropractic education, legislation and jurisprudence; a predominant middle period with most citations reporting the adverse effects, complications and methods of chiropractic; and the current period showing a softening in the medical political rhetoric regarding chiropractic to the point of indexing chiropractic literature per se.

**Key Words:** Abstracting and Indexing; Bibliography of Chiropractic; Chiropractic; Index Medicus; Literature, Medical; Medlars-Medline Information System; National Library of Medicine.

### Introduction

#### Synopsis of the Development of the National Library of Medicine

Since the 19th century, the United States has collected medical literature from throughout the world in the National Library of Medicine, (1956 to present), and in its predecessors: the Library of the Surgeon General of the Army (1818-1922); the Army Medical Library (1922-1952); and the Armed Forces Medical Library (1952-1956).<sup>(1)</sup>

The Library of the Surgeon General of the Army (LSGA) developed as an outgrowth of the Office of the Surgeon General of the Army.<sup>(2)</sup> Established in 1818, the medical division of the United States Army had very little in the way of appropriations for the Office itself, let alone for the library. The library consisted of materials personally collected by the Surgeon General and by his surgical staff. The Office ledger's first library expenditure was recorded in 1836 when \$150.00 was spent for "books and other materials;" this date is generally acknowledged as the birthdate of today's National Library of Medicine.<sup>(3)</sup>

Development of the LSGA was not a high priority until the United States Civil War, 1861-1865. The Surgeon General's Office grew busy managing the heavy demands of wartime surgical services and the demands on LSGA were heavier than any other time. Because of this, the LSGA grew considerably in staff and materials. Information services expanded to provide for the needs of field surgeons and hospitals which were scattered throughout the country.

Following the Civil War, the LSGA grew in development and prestige, due to the leadership of John Shaw Billings, M.D., LSGA director from 1870-1895. During his directorship the LSGA began to comprehensively collect the world's "best" medical literature. The collection previously had consisted of narrowly defined basic reference medical and surgical texts used by the Army's surgical corps. Little else was deemed necessary for the library, including basic sciences texts. Billings' desire to build the library collection through the acquisition of both American and foreign medical literature was the force which would later propel the LSGA to publish

the most comprehensive catalog of the world's medical literature. This catalog is considered the standard resource for nineteenth century medical literature.

Among his other accomplishments, Billings was instrumental in the planning and construction of the Army Medical Library-Museum building on the Washington Mall (1887). He conceived the idea of a National Medical Library for use by all medical personnel in the United States, not just the military. He helped plan and develop the United States Public Health Service, of which the National Library of Medicine is today a branch. He encouraged the development of basic medical research. He designed the Johns Hopkins Hospital and many other hospitals. Finally, he was the first director of the New York Public Library.<sup>(4)</sup>

Between 1895 and 1922, the LSGA had a succession of directors, all chosen from the medical ranks of the Army. In 1922, the LSGA was officially renamed the Army Medical Library (AML). The War Department continued funding the AML. Management remained with the Department of the Army with little outside funding or input. AML directors also maintained strong links with the military being chosen from the Army medical doctors, usually surgeons.<sup>(5-6)</sup>

Following a special Congressional report in 1952, the AML was reorganized and renamed the Armed Forces Medical Library (AFML). This change was in part an attempt to distribute the operating cost among the other armed forces which benefited from the library's services. This reorganization also was a foreshadowing of what was to come in the next few years.

In the mid-1950's, a Congressional committee recommended that the AFML should be reconstituted and divorced from military management. Suggestions included absorption by the Library of Congress, a recommendation which had come up several times in the past and had always been defeated by the military lobby.

In August 1956, President Dwight D. Eisenhower signed into law Congressional legislation drafted by Senators Lister Hill and John F. Kennedy reorganizing the Armed Forces Medical Library as the National Library of Medicine (NLM), a branch of the Public Health Service's National Institutes of Health (NIH). A new NLM building was dedicated and opened in 1962 on the 300 acre NIH campus in Bethesda, Maryland. A second addition, the Lister Hill National Center for Biomedical Communications, was opened in 1980.

As a part of the Public Health Service and NIH, the National Library of Medicine has developed a number of service oriented programs aimed at facilitating information access for the health sciences.<sup>(7-9)</sup> These include the pioneering role of NLM in computerizing bibliographic information,<sup>(10)</sup> the coordination of a cooperative regional library program,<sup>(11)</sup> and the development of a computerized integrated library system.<sup>(12)</sup>

### Synopsis of the Development of *Index Medicus*

The legitimate birth of medical journal literature indexing in the United States was delivered by Billings in 1879 with the publication of *Index Medicus, A Monthly Classified Record of the Current Medical Literature of the World, Series 1*.<sup>(13)</sup> The forerunner of the National Library of Medicine's computerized and highly sophisticated *Medical Literature and Retrieval System, (MEDLARS)*, *Index Medicus* was to go through several versions over the next 80 years.

Initially, the development of *Index Medicus* was as a companion to the *Index-Catalogue of the Library of the Surgeon-General's Office*. Primarily a catalog of the LSGA's book holdings, the *Index-Catalogue* also contained listings of journals and pamphlets. Begun in 1876, the *Index Catalogue Series 1* was completed in 1895. The companion *Index Medicus, Series 1* continued to be published until 1899, when the overwhelming logistical complexity of the project brought it to a halt.

The medical literature published between 1900-1902 was indexed in Paris, France, and published in *Bibliographia Medica*.

*Index Medicus, Series 2* was resumed in 1903 under the editorship of the LSGA, funded by the Carnegie Institution of Washington, D.C. Publication of *Index Medicus, Series 2* continued until 1920 when it was closed. *Index Medicus, Series 3* began in 1921 and closed with the June 1927 issue because of the burdensome cost and time consuming format. Publication consistently ran up to six months behind schedule, with little hope of becoming more timely.

The American Medical Association (AMA), dissatisfied with *Index Medicus, Series 3's* delays, began publishing *Quarterly Cumulative Index to Current Medical Literature* in 1916. This index was published from 1916-1926.

In 1925, the LSGA proposed a joint medical literature index with the American Medical Association. Morris Fishbein, M.D., among others in the AMA, agreed to the merit of the project. In January 1927, *Quarterly Cumulative Index Medicus* began

publication.<sup>(14-15)</sup> The Army Medical Library continued to index primarily foreign language journals until 1932 when it withdrew from the project. The *Quarterly Cumulated Index Medicus* was published between 1927-1956 when the financial burdens and complexity of the project forced the AMA to end publication.

In 1938 the Army Medical Library began a microfilming service for its journal collection with a small index to the journal articles. Prior to the United States' direct involvement in World War II, the Friends of the Army Medical Library began publishing the *Current List of Medical Literature* in 1941. The index was to serve as a current awareness service for the Army's medical operations around the world. During World War II the Friends group and the Medical Library Association produced the *Current List of Medical Literature*. In 1945, the Army Medical Library took over responsibility and continued publication alongside AMA's *Quarterly Cumulated Index Medicus*. However, with the cost and logistics of producing the medical indexes rising greatly after World War II due to the increased number of journals and production costs, the *Quarterly Cumulated Index Medicus* closed in 1956 and the *Current List of Medical Literature* closed in 1959.

One of the primary objectives of the reorganized National Library of Medicine was to computerize the production of *Current List of Medical Literature*. In 1960, *Index Medicus, New Series* appeared as the major indexing publication for medical literature in the United States. *Index Medicus, New Series* was launched as a joint publishing project which held NLM responsible for the monthly and annual cumulation production and the AMA responsible for the annual *Cumulated Index Medicus* distribution. By 1966, the AMA dropped out completely and the National Library of Medicine took responsibility for both production and distribution of the monthly *Index Medicus, New Series* and *Cumulated Index Medicus*.

Computerization by the National Library of Medicine of the bibliographic data for *Index Medicus, New Series* set the stage not only for rapid publication in paper copy but also for development of direct online access to the database for rapid retrieval of medical literature.<sup>(16)</sup> The development of Phase 1 of the *Medical Literature and Retrieval System* (MEDLARS II) allowed the National Library of Medicine staff to perform limited computerized bibliographic literature search requests for selected patrons. MEDLARS II allowed interactive database

searching by librarians with the proper equipment and training from throughout the country. MEDLARS III is moving toward more user-friendly searching techniques which will allow anyone with proper equipment and training to search the MEDLARS databases. MEDLARS III also would fully intergrate library operations online.

## Methodology

The bibliography was compiled by:

1. Identifying the major medical literature indexes published in the United States since 1895 and the establishment of chiropractic. Seven such titles were identified:

*Index Medicus, Series 1, 1876-1899.*

Library of the Surgeon General of the Army, 1876-1899

*Index Medicus, Series 2, 1904-1920:*

Library of the Surgeon General of the Army, 1904-1920

*Index Medicus, Series 3, 1921-1926:*

Library of the Surgeon General of the Army, 1921-1922

Army Medical Library, 1922-1926

*Quarterly Cumulated Index to Current Medical Literature, 1916-1926:*

American Medical Association, 1916-1926

*Quarterly Cumulated Index Medicus, 1927-1956.*

American Medical Association, 1927-1956

Army Medical Library, 1927-1936

*Current List of Medical Literature, 1941-1959.*

Friends of the Army Medical Library, 1941-1945

Medical Library Association, 1942-1945

Army Medical Library, 1945-1952

Armed Forces Medical Library, 1952-1956

National Library of Medicine, 1956-1959

*Index Medicus, New Series, 1960 to current:*

National Library of Medicine, 1960 to current

*Cumulated Index Medicus, 1960 to current:*

National Library of Medicine, (1960 to current)

American Medical Association, 1960-1965

MEDLARS databases other than the Medline files were not searched.

2. The proper subject headings for searching Chiropractic were verified. The appropriate subject headings were searched in each index to record the citations. Prior to 1927, **Chiropractic**; **Chiropraxis**; **Chiropraxy**; and **Chiropractic**, (see **Medicine, cults**); **Condition of Medicine, Medical Ethics**; were used interchangeably. After 1928, **Chiropractic** was the preferred subject heading

- assigned with various subheadings attached.
3. For the years 1895 to 1965, photocopies of the citation entries were made. From 1966 to 1984, a computer generated bibliography was printed by the National Library of Medicine's MEDLARS.
  4. The citations were keyed into a Digital VAX 11/750 using the VAX/VMS operating system, the VAX Editor and Runoff programs.

Listings were arranged by year with subsequent arrangements alphabetized by journal title. The bibliography has English language journals A-Z listed first. Foreign language journal titles A-Z follow separately. Citations within the same journal title are arranged chronologically in descending order, the most recent citation listed first. This arrangement emulates the *Index Medicus New Series* format. Subheadings were not applied in this bibliography but will be developed in an update edition of the bibliography.

5. Subsequent statistical data was tabulated on the VAX 11/750.

## Results

Of the seven indexes searched, six cited medical literature regarding chiropractic. The total number of bibliographic citations recorded for the seven indices was 684; 459 (67 percent) were in English and 225 (33 percent) were in non-English languages.

Table 1 displays the recorded number of citations published by each of the index titles with columns for English and non-English entries. *Index Medicus, New Series* has 67 percent of the total 684 citations.

Table 2 displays the recorded number of unique citations by year with separate English and non-English language columns. The total number of unique entries is 651. There were 33 duplicate entries among the indices. English language entries, including monographs, numbered 430 (66 percent); non-English language entries numbered 221 (34 percent).

The year with the most entries under the subject heading **Chiropractic** is 1983 (36), followed by 1980 (34), 1979 (32), 1973 (31), 1982 (28) and 1984 (26).

The year with the most English language entries is 1983 with 34.

The year with the most non-English language entries is 1967 with 14.

Table 3 displays the 16 languages indexed with number of entries for each language. The most cited language is English (430) including the seven monographs from the early 1920's.

The most cited non-English language is German

(126), followed by French (43), Danish (12), Norwegian (11) and Spanish (8).

Table 3 also displays the number of unique journal titles and the publication years spanned by the entries. There are 132 English language journal titles represented and 94 foreign language titles. There are 43 unique German titles, 22 French titles, seven Spanish titles, and six Italian titles with three or fewer titles for the remaining languages.

Tables 4 and 5 display the ten most cited English language journal titles and the ten most cited non-English language journal titles with their entries totaled and the span of publication years listed.

The most cited English language journal is *Journal of the American Medical Association* with 57 unique entries followed by *Journal of Physiological and Manipulative Therapeutics* with 51 entries.

The most cited non-English language journal is the German *Hippokrates* with 25 entries followed by the Danish *Tidsskrift for den Norske Laegeforening* with 11 entries.

Tables 6 and 7 display the first ten English language and first ten non-English language citations recorded in the indices.

## Discussion

Six chiropractic bibliographies and resource guides have been published over the past ten years. Three titles have been indexes to chiropractic literature per se.<sup>(17-25)</sup> The other three monographs have acted as chiropractic resource guides to literature published outside the chiropractic profession. These resources have taken citations from indexes of both allopathic medical literature and general interest literature.<sup>(26-28)</sup>

These works are vital in searching the literature regarding chiropractic clinical and research information. However, the organization of the information presented is not consistent except for the annual *Index to Chiropractic Literature* and the *Chiropractic Research Archives Collection*, which are both organized upon National Library of Medicine indexing protocols. The citation organization of the other resource guides is too diverse. The subject indexing is also too narrow. This lack of standardization makes the other four titles confusing to use effectively.

The purpose of this bibliography is to provide a current and standardized presentation of the literature cited by the allopathic medical literature indexes published in the United States from the beginning of chiropractic in 1895 through 1984. The organization of the bibliography is based upon *Index Medicus*

*New Series* protocol. This organization displays the diversity of the journal titles cited and the types and trends of articles published.

The first citation found in these indexes was recorded in *Index Medicus Series 2*, 1912; 10:727 under the heading *Chiropractic*. *Index Medicus, Series 1* would have overlapped chiropractic's founding by four years, but no reference was found until *Index Medicus, Series 2* was well into its publication run. One reason for this lack of recognition in the medical literature was because of the growth in the number of medical journals published. Although the number increased, the number and type of journals indexed remained relatively constant due to the fixed focus of the indexing program, namely material refereed quality and practical interest to military medical and surgical personnel.<sup>(29-30)</sup>

Subsequently, the first 32 years of chiropractic's existence saw the medical literature indexes cite only 46 articles on chiropractic. This period was covered by both the Library of the Surgeon General of the Army/Army Medical Library and the American Medical Association indexing projects. Indeed, through 1926 the American Medical Association indexed more articles about Chiropractic, 24 entries to 21 entries.

From 1927-1941, when the AMA was the sole major United States medical literature indexing publisher, 23 citations regarding chiropractic appeared in *Quarterly Cumulated Index Medicus*. From 1927-1956, the *Quarterly Cumulated Index Medicus* referenced 39 chiropractic articles which were predominantly English language (74 percent).

From 1941-1959, the *Cumulated List of Medical Literature* indexed 142 citations, three times the number of articles the AMA had previously indexed. The majority of these articles were non-English language (61 percent), and there were more non-English language citations than English language citations 12 of the 19 publication years.

The majority of the chiropractic articles indexed came from *Index Medicus New Series*. Resuming its original 1876 title in 1960, *Index Medicus New Series's* production and scope also reflect the dimensions and impact the information explosion had during the 1960's. As more journals were published, more journals were indexed and more articles regarding chiropractic in the medical literature were cited, especially since production was now sponsored by the Public Health Services and not the military with its surgical bias.

Two other observations can account for the increased number of chiropractic entries. First, some

citations fostered each other. For instance, in 1980 Walter Wardwell published an article on chiropractic in the *New England Journal of Medicine*. Subsequently, the journal published five letters to the editor responses. Hence, there are six entries related to the same initial article. However, while letters to the editor did account for 66 of the 457 entries in the *Index Medicus, New Series* (14 percent), not all letters to the editor are treated as either responses or rebuttals to published articles. British Commonwealth journals are the noted exceptions where letters to the editor may be published as either mini-case reports or as editorial opinions and comments from the field.

A second observation on the increased number of chiropractic citations over the past few years is due to the National Library of Medicine's indexing of *Journal of Manipulative and Physiological Therapeutics* (JMPT) since 1982. Of the 90 chiropractic entries between 1982-1984, JMPT accounts for 51.

The disparity between the total number of citations in Tables 1 and 2 is due to the duplication of 33 citations among the index titles. Table 2 also shows no apparent trend of indexing non-English language citations. The indexing of non-English language journals did not increase as much as English language journals because the National Library of Medicine began indexing more journals with computerization.

English, German and French languages are the most indexed languages accounting for a combined 92 percent of the entries. Citations in English accounted for 59 percent, German 17 percent, French for 6 percent with other languages accounting for the remaining 8 percent. The number of unique journal titles indexed also follows the English (59 percent), German (19 percent) and French (9 percent) pattern.

The most cited English language journal is *Journal of the American Medical Association*, with 9 percent of the total number of entries and nearly 14 percent of the English language entries over a 56 year span. It is interesting to note there has not been an indexed reference to chiropractic in the journal between 1981-1984.

The second most cited journal is a direct contrast to the *Journal of the American Medical Association*. In just three years, the *Journal of Manipulative and Physiological Therapeutics* has accounted for nearly 8 percent of the total number of indexed entries and nearly 12 percent of the total number of English language entries.

The most cited non-English language journal is the German *Hippocrates*. It was established in 1928 and ceased publication in 1978. Subject headings assigned to its cataloging at the National Library of Medicine indicate it was a physical therapy journal. The journal accounted for 11 percent of the non-English language entries and was the fourth most cited journal title, accounting for nearly 4 percent of all the indexed entries.

Observations regarding the first ten English and non-English entries can be made from an historical and sociological standpoint. A review of only the titles of the articles seems to show a general pattern regarding medical literature's early coverage of chiropractic.

In the English language entries, the early entries from 1911 to the 1930's, seem to deal primarily with defining chiropractic for the medical community. There are also a number of entries regarding chiropractic educational requirements and qualifications.

The 1930's through the 1960's report a good number of legislative/jurisprudence actions. These entries are primarily from summaries and notices in state medical society journals.

Beginning in the 1950's to date, there are more reports regarding the consequences of chiropractic methods and theory with most of the entries reporting adverse effects or complications.

The mid-1970's begins the reporting of a greater proportion of articles published in journals other than the national and state medical society journals, which are more neutral.

Finally, in the 1980's there are articles indexed which deal with chiropractic from within the profession, which had not previously been the case. There are also more articles regarding chiropractic which take a more professional and less political outlook.

The early non-English language entries cover much the same subject matter as the English language entries with a good number of legislative/jurisprudence and politically motivated articles. There is, however, a noteworthy difference between the English language and non-English language entries. The non-English language entries show more articles reporting the use of chiropractic and manual medicine in clinical settings. From this viewpoint, the non-English language entries are more useful to chiropractic research.

## Summary

This bibliography provides an up-to-date compilation of articles regarding chiropractic as reported in the seven major medical indexes published over the past 89 years.

It would be incorrect, however, to conclude that these are the only citations in the medical literature regarding chiropractic. Given the narrow scope of medical subject interest and the guidelines developed by the major medical literature indexes for indexing that medical literature, it is highly probable that there are many other chiropractic articles in the medical literature which have not been indexed, especially if the material has been published in a non-English language journal.

This bibliography is useful for historically reconstructing medicine's view of chiropractic. The articles found in the medical literature indexes are overwhelmingly articles written by the medical profession (92 percent).

Fortunately, there is an increasing number of entries in medical literature indexes from the chiropractic profession due to both the indexing of chiropractic literature and the publication by the members of the chiropractic profession in refereed and indexed journals. The task for chiropractic is to continue to publish research with high standards and quality writing.

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TABLE 1  
NUMBER OF CHIROPRACTIC CITATIONS PER INDEX TITLE THROUGH 1984

Index Title	Total Number	English Language	Foreign Language
<i>Index Medicus, Series 1</i> 1876-1899	0	0	0
<i>Index Medicus, Series 2</i> 1903-1920	5	5	0
<i>Index Medicus, Series 3</i> 1921-1927	16	16	0
<i>Quarterly Cumulated Index</i> 1916-1926	25	24	1
<i>Quarterly Cumulated Index Medicus</i> 1927-1956	39	29	10
<i>Current List of Medical Literature</i> 1941-1959	142	55	87
<i>Index Medicus, New Series</i> 1960-	457	330	127
Totals	684	459	225

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TABLE 2  
NUMBER OF UNIQUE CITATIONS BY YEAR

Year	Total	Eng	For	Year	Total	Eng	For
1911	1	1	0	1951	7	2	5
1912	0	0	0	1952	14	11	3
1913	0	0	0	1953	12	4	8
1914	0	0	0	1954	5	1	4
1915	2	2	0	1955	12	1	11
1916	1	1	0	1956	15	2	13
1917	4	4	0	1957	12	2	10
1918	0	0	0	1958	14	1	13
1919	0	0	0	1959	10	1	9
1920	0	0	0	1960	8	2	6
1921	6	6	0	1961	2	0	2
1922	9	9	0	1962	8	6	2
1923	6	6	0	1963	7	4	3
1924	4	3	1	1964	12	7	5
1925	4	4	0	1965	6	3	3
1926	3	3	0	1966	12	8	4
1927	2	2	0	1967	21	7	14
1928	7	5	2	1968	9	2	7
1929	0	0	0	1969	17	9	8
1930	1	0	1	1970	12	6	6
1931	2	1	1	1971	19	16	3
1932	1	1	0	1972	20	11	9
1933	3	3	0	1973	31	26	5
1934	1	0	1	1974	25	17	8
1935	0	0	0	1975	20	18	2
1936	2	1	1	1976	17	11	6
1937	1	1	0	1977	15	6	9
1938	1	1	0	1978	18	13	5
1939	1	1	0	1979	32	27	5
1940	1	1	0	1980	34	31	3
1941	4	2	2	1981	10	6	4
1942	6	6	0	1982	28	26	2
1943	14	11	3	1983	36	34	2
1944	4	1	3	1984	26	24	2
1945	1	1	0				
1946	1	0	1				
1947	4	3	1				
1948	1	0	1				
1949	1	0	1				
1950	7	6	1	Totals	651	430	221

**TABLE 3**  
**LANGUAGES OF JOURNALS INDEXED**

Language	Unique Citations	Unique Titles	Years Spanned
Croatian	2	1	1959,1964
Czechoslovak	1	1	1968
Danish	12	3	1924-1977
Dutch	1	1	1979
English	423	132	1911-1984
French	39	22	1928-1984
German	126	43	1931-1981
Italian	7	6	1928-1981
Norwegian	11	1	1958-1976
Polish	2	1	1968,1983
Russian	5	3	1980-1983
Rumanian	1	1	1946
Swedish	5	2	1970-1979
Spanish	7	7	1947-1984
Poly	1	1	1965
Multilingual	1	1	1967
Totals	644	226	1911-1984

**TABLE 4**  
**TEN MOST CITED ENGLISH LANGUAGE JOURNALS**

Journal Title	Number	Span
1. JOURNAL of the AMERICAN MEDICAL ASSOCIATION	57	1915-1981
2. JOURNAL of MANIPULATIVE and PHYSIOLOGICAL THERAPEUTICS	51	1982-1984
3. NEW ENGLAND JOURNAL of MEDICINE	28	1928-1982
4. CANADIAN MEDICAL ASSOCIATION JOURNAL	20	1926-1979
5. MEDICAL JOURNAL of AUSTRALIA	16	1960-1984
6. NEW YORK STATE JOURNAL of MEDICINE	15	1924-1983
7. NEW ZEALAND MEDICAL JOURNAL	11	1967-1981
8. BRITISH MEDICAL JOURNAL	10	1925-1980
9. LANCET	7	1974-1983
10. PHYSICAL THERAPY	7	1966-1975

**TABLE 5**  
**TEN MOST CITED NON-ENGLISH LANGUAGE JOURNALS**

Journal Title	Language	Number of Citations	Span
1. HIPPOCRATES	German	25	1951-1967
2. TIDSSKRIFT for den NORSKE LAEGEFORENING	Norwegian	11	1958-1976
3. UGESKRIFT for LAEGER	Danish	10	1924-1974
4. DEUTSCHE MEDIZINISCHE WOCHENSCHRIFT	German	9	1931-1981
5. MEDIZINISCHE WELT	German	8	1951-1978
6. ZEITSCHRIFT fur ALLGEMEINMEDIZIN; der LANDARZT	German	7	1969-1973
7. MEDIZINISCHE KLINIK	German	6	1954-1980
8. WIENER MEDIZINISCHE WOCHENSCHRIFT	German	6	1956-1971
9. HNO. WEGWEISER fur die FACHAERZTLICHE	German	5	1968-1978
10. PRESSE MEDICALE	French	5	1930-1970
REVUE du RHUMATISME et des MALADIES OSTER-ARTICULARIES	French	5	1953-1968
UNION MEDICALE du CANADA	French	5	1941-1967

**TABLE 6**  
**FIRST TEN ENGLISH CITATIONS IN ASCENDING CHRONOLOGICAL ORDER**

- Chiropractic, what is it? Shaller JM  
DENVER MEDICAL TIMES [etc] 1911-12 xxxi, 457-466
- A Judicial Opinion on chiropractic  
BOSTON MEDICAL and SURGICAL JOURNAL 1915; eixiii, 145-147
- Where chiropractors are made Duhigg TF  
JOURNAL of the AMERICAN MEDICAL ASSOCIATION 1915; ixv, 2228
- Chiropractic and bone setting Mattison?  
NEW YORK MEDICAL JOURNAL 1916 July 15; 104:103
- False systems of healing-no 3: chiropractic Ferguson J  
CANADA LANCET Toronto 1917-18; ii, 54-78

TABLE 6  
FIRST TEN ENGLISH CITATIONS IN ASCENDING CHRONOLOGICAL ORDER (Continued)

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- Fallacy of claims Seba JD  
JOURNAL of the MISSOURI MEDICAL ASSOCIATION 1917 Oct; 14:437
- Where chiropractors are made Duhigg TF  
TEXAS STATE JOURNAL of MEDICINE 1917 Jan; 12:364
- New obesity cures for old or chiropractic thrust? Peters LH  
CALIFORNIA STATE JOURNAL of MEDICINE 21 June; 31:237
- The case of Miriam Rubin [no author listed]  
JOURNAL of the AMERICAN MEDICAL ASSOCIATION 1921 Mar 5; 76:654
- B.J. Palmer, chiropractor Farnsworth FF  
WEST VIRGINIA MEDICAL JOURNAL 1921 Jan; 15:252
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TABLE 7  
FIRST TEN NON-ENGLISH CITATIONS IN ASCENDING CHRONOLOGICAL ORDER

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- [Committee report on chiropractic presented to Danish Medical Association] Kuhn J  
UGESKRIFT for LAEGER 1924 Dec 4 86:943-944 (Danish)
- [Value of chiropractic treatment of impotence in young men] Peretra R  
FOLHA MEDICA 1928 Jul 15; 9:237 (Italian)
- [Several types of beaters] Gilreen M  
REVUE ANTHROPOLOGIQUE 1928 Jan-Mar; 38:90-96 (French)
- [Chiropractic] Ichok G  
PRESSE MEDICALE 1930 Mar 29; 38:445 (French)
- [Claims as set forth in CO Reigli's book, "Die Chiropratik ihr Wesen un ire Anwendung"] Neustaiter O  
DEUTSCHE MEDIZINISCHE WOCHENSCHRIFT 1931 Oct 30; 57:1863-1864 (German)
- [Chiropractors in United States] Dally P  
PRESSE MEDICALE 1934 Sep 26; 42:1509-1511 (French)
- [Chiropractors; self description] Pariseau LE  
JOURNAL de l'HOTEL-DIEU de MONTREAL 1936 Jan-Feb; 5:1-32 (French)
- [Chiropractic in the Quebec province?] Desrochers JE  
UNION MEDICALE du CANADA 1941; 70:1290 (French)
- [Chiropractors] Amyot R  
UNION MEDICALE du CANADA 1941; 70:1323 (French)
- [Dental caries in the middle aged of northern Greenland]  
UGESKRIFT for LAEGER 1943; 105:20 (Danish)
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