

## IN BRIEF

- Have a greater understanding of the role of Pierre Fauchard in the development of dentistry as a modern profession.
- Appreciate how Pierre Fauchard broke with the conventionalism of his time, and shared his knowledge and techniques with other colleagues.
- Appreciate the contemporary role of the Pierre Fauchard Academy.

# Pierre Fauchard: the 'Father of Modern Dentistry'

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The development of the modern practice of dentistry can be traced to the work and life of Pierre Fauchard, a French dentist who worked in the first half of the eighteenth century. Fauchard was an exceptionally gifted and talented practitioner, who introduced many innovations to dentistry. In a significant break with the tradition of the time, he shared his knowledge and techniques with colleagues, and published these in the first comprehensive dental textbook. This paper reviews his life and contribution to modern dentistry.

## INTRODUCTION

If we reflect on the advances in dental practice made over the past four centuries, it is clear that the most significant contributions to the development of our profession were made by a small number of unusually gifted practitioners. Pre-eminent among them was Pierre Fauchard (1678-1761), who is widely acclaimed as the 'Father of Modern Dentistry'.<sup>1</sup> He was concerned by the ignorance of many of his colleagues, and deplored the selfishness of the more able among them who jealously guarded the secrets of their clinical techniques. In 1728 he published a comprehensive textbook, *Le Chirurgien Dentiste*, detailing the contemporary state of dental knowledge and making his own observations.<sup>2</sup> *Le Chirurgien Dentiste* swept away the old attitudes of secrecy introducing an era of openness and scientific evaluation. As a result of this work, France became rec-

ognised as the leading centre for dental excellence. His ideas took root in North America and profoundly influenced the development of dentistry there. In recognition and commemoration of his rôle, the Pierre Fauchard Academy was founded over 60 years ago.<sup>3</sup> The Academy continues to promote the tradition of professionalism and altruism which he established.

### Early life and training

Few details of Fauchard's early life are known. The surname is quite rare and probably derives from a nickname. The eponymous ancestor may have been proficient in the use of the medieval weapon called a *fauchard* which consisted of a curved blade attached to a 2 m long wooden pole.

Pierre Fauchard was born in Brittany in 1678. His family does not appear to have been wealthy and his schooling not up to the best standards of the day.<sup>1</sup> When he was about 15 years old he began training as a surgeon in the French Navy under the tutelage of Surgeon Major Alexandre Poteleret, who had a particular interest in diseases of the mouth.<sup>1</sup> Fauchard held him in high regard. While serving at sea, Fauchard observed many oral diseases including scurvy, which was very common at that

time and not only among seafarers.<sup>4</sup> Readers unfamiliar with the case reports of those days should consider how familiar conditions like a periapical abscess or a fractured jaw might progress without the benefits of practical advice, surgical intervention or modern therapeutics. Add to these the disadvantages of malnutrition, poor hygiene, inadequate accommodation and inappropriate treatment, and we begin to appreciate what Fauchard encountered during his long career.

Three years later, Fauchard left the Navy and began working as a dentist.<sup>1</sup> It is not known why he made this decision. Recognising the deficiencies of his training he read widely and studied the crafts from which he might adapt techniques and instruments. These crafts included watch-making, jewellery making and enamelling.<sup>5</sup> This early emphasis on what would nowadays be termed continuing dental education became a lifelong passion for Fauchard.

### Dentistry at the time of Fauchard

The standards of dental treatment were primitive in Fauchard's time. There were no formal training courses and no formal regulatory bodies.<sup>6</sup> There were few books on the subject of dentistry, although many of those dealing with

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general surgery did contain some useful pieces of dental relevance.<sup>7</sup> Despite these disadvantages, there were probably more dental practitioners in pre-industrial Europe than is generally realised. It is impossible to accurately identify the number of dental practitioners, but the diocese of Norwich in England was one of those that did issue licences to dentists, and between 1700 and 1720 a total of 24 individuals received licences to practice 'drawing teeth'.<sup>8</sup>

Some patients could afford the services of general surgeons with a special interest in teeth, but the majority relied on toothpullers who often attended at markets and fairs. Although many of these were probably more well-meaning and caring than they are generally portrayed, they were often regarded with suspicion and some were undoubtedly rogues and charlatans.<sup>6</sup>

**Fauchard's life and practice**

Having left the Navy in 1700, Fauchard established his practice in the university town of Angers in Western France.<sup>1</sup> His unprecedented competency, conscientiousness and scientific approach earned him an outstanding reputation, attracting discerning patients who journeyed great distances to see him. Nineteen years later, he established practice as a 'chirurgien-dentiste' (surgeon-dentist), the first to use this title, at Rue des Fosses St. Germain (also known as the Rue de la Comédie Française), in the University Circle, Paris. Eighteenth century Paris was regarded as the centre of learning and enlightenment of Europe. Quickly recognised as a dentist of unparalleled skill and acumen, his advice and talents were regularly in demand by some of the city's most accomplished surgeons. His practice was very successful, attracting the more elite and select patients.

In 1729, Fauchard married Elisabeth Chemin, daughter of a high-ranking public servant in Rennes. Five years later they bought the small attractive chateau of Grandmesnil at Bur sur Yvette to the south of Paris. This building was visited by one of the authors (VROS) (Fig. 1). While the building still stands, the interior has been extensively renovated in recent times and only the staircase remains from Fauchard's time (Fig. 2). A bust of Pierre Fauchard still stands in the grounds of the chateau (Fig. 3). The Fauchard's city residence was in the

Rue des Cordeliers in Paris. Pierre and Elisabeth had one son, Jean Baptiste, who had a varied career including law, acting and teaching. Fauchard died in 1761 and was buried in Paris, close to his residence. He was succeeded in his practice by his brother-in-law and pupil, Monsieur Duchemin.<sup>1</sup>

**'Le Chirurgien Dentiste'**

To encourage greater education and development of the dental profession, Fauchard published '*Le Chirurgien Dentiste ou Traité des Dents*' ('*The Surgeon Dentist or Treatise on the Teeth*') in Paris in 1728.<sup>2</sup> Comprising two volumes of over 800 pages including many illustrations, Fauchard shared his considerable knowledge and observations with colleagues and students, describing his techniques with exceptional clarity and detail. Many of his suggestions were radical for practice of that time. He advised the seating of patients for dental procedures, while the conventional approach was to lay the patient on the floor. He was among those who dismissed the presence of worms in teeth as the causative agents of dental decay, and he coined the term 'dental caries'. He demonstrated the presence of roots on deciduous teeth, which was not readily accepted at the time. He was the first practitioner to emphasise the importance of a sound knowledge of the preclinical sciences in the delivery of dental care. This openness was unique at the time, when knowledge and techniques were valuable property and jealously guarded by practitioners.

Many of Fauchard's observations are as relevant today as they were in 1728. He condemned the reckless extraction of primary molars, realising it caused drifting of the permanent dentition, but he advised the removal of deciduous teeth when this was warranted to prevent malocclusion in the permanent dentition. Fauchard is regarded as one of the world's first orthodontic specialists. He urged caution in the use of endodontic reamers, warning against breakage and swallowing, valuable advice still relevant to modern dental practice. Dental practice insurers regularly report the incidence of claims for swallowed endodontic instruments and the lack of defence for such negligence.<sup>9</sup> The significance of the relationship between systemic and oral disease is highlighted in his work. Fauchard adopted a scientific



Fig. 1 Exterior of Pierre Fauchard's residence at Chateau Grandmesnil, photographed in 2001

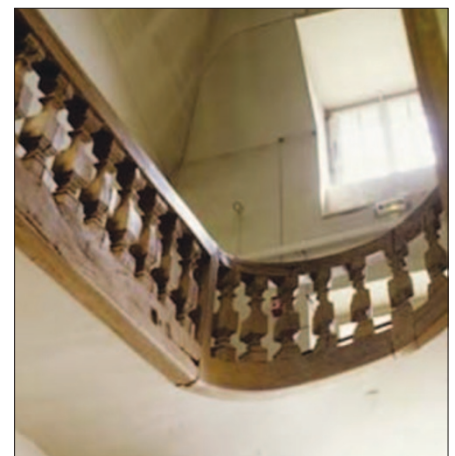


Fig. 2 Interior of Chateau Grandmesnil showing the staircase. This is the only remaining original feature of the interior of the building since the time of Fauchard, as the rest of the interior has been extensively restructured. This photograph was taken in 2001



Fig. 3 Bust of Pierre Fauchard which stands in the grounds of Chateau Grandmesnil. This photograph was taken in 2001

approach to dental practice. He refuted the opinions of self-styled 'experts' and relied on his own observations of the success or otherwise of clinical techniques and became a harbinger of 'evidence-based dentistry'. One hundred and three diseases of the teeth and oral cavity are thoroughly described in his book, a considerable catalogue for any textbook of the time. The classical description of pyorrhoea was so thorough that for a time it was called 'Fauchard's disease'.

Fauchard was the first to record anything that would be helpful to a student of dentistry in the construction of complete dentures. His description of crown and bridgework is primitive, but the basic principles are still accepted today. Obturators were originally described by Ambrose Paré (the 'Father of Modern Surgery'), but Fauchard introduced new and innovative designs that greatly improved the quality of life for those patients unfortunate enough to require such treatment.<sup>10</sup>

Fauchard discussed all aspects of dentistry: oral surgery, orthodontics, periodontics, prosthodontics, as well as the underlying sciences of anatomy, pathology and pharmacology.<sup>11</sup> A second edition of the work was published in 1746, followed by a third edition in 1786, 25 years after his death. The first German translation appeared in 1733, but the first English translation was not published until 1946.<sup>12</sup>

Fauchard's goal was achieved with the publication of the first edition. His recommendations were accepted and colleagues began to share information freely with each other. Similar informative books by other authors followed, and the practice of dentistry was permanently changed for the better.

### The Pierre Fauchard Academy

The Pierre Fauchard Academy is an international dental organisation that was founded in 1936.<sup>3</sup> Among its objectives is to recognise and acknowledge the more dedicated and conscientious dentists by inviting them to Fellowship in the Academy. There are currently about 7,000 PFA Fellows representing 42 countries worldwide. The Academy ensures that Fauchard's legacy to dentistry is sustained by sponsoring mentorship programmes and fostering the sharing of information among colleagues. It maintains a 'Hall of Fame' which honours the most famous dentists in the history of our profession. Awards for outstanding achievement in dentistry are presented annually. The Academy is particularly mindful of its rôle in encouraging students and presents a prestigious Undergraduate Certificate of Merit to one student each year in every participating dental school. Through the PFA Foundation, it offers scholarships, funds research and training programmes, and supports a broad range of charitable activities. Information about the Academy is available from [www.fauchard.org](http://www.fauchard.org).

### CONCLUSION

Pierre Fauchard is recognised for introducing into dentistry the principles of openness and co-operation that resulted in progress towards better standards of dental care through rigorous scientific enquiry. He eliminated the secrecy that had previously stifled its growth. He was a man of astute observation and based his treatment plans and clinical techniques on a sound analysis of similar cases. His work had a

major influence on the development of dentistry and is commemorated in the ethos of the Academy which bears his name. A fitting tribute comes from Chapin A. Harris, the great American dentist who helped establish the first US dental college at Baltimore, Maryland, who wrote '*Considering the circumstances under which he lived, Fauchard deserves to be remembered as a noble pioneer and sure founder of dental science. That his practice was crude was due to his times, that it was scientific and comparatively superior was due to himself.*'<sup>13</sup>

*The assistance of Mr Evan Carr in the production of Figure 3 is gratefully appreciated.*

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